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Original Communications.

A CONTRIBUTION TO THE STUDY OF CLUB-HAND.

*Abstract of paper read by REGINALD H. SAYRE, M.D., before the Pan-American Medical Congress, Washington, September, 1893.**

Club-hand is very much less frequent than club-foot. It may be acquired as the result of paralysis of certain muscles, or contraction of others from central nervous irritation, by cicatrices resulting from burns, or be due to injuries to the bones of the hand or forearm, or it may be congenital.

Of the first variety, J. K. Young reports a case where an infant had the left side of the head injured at birth. A large hematoma formed here, and subsequently the right

hand was markedly adducted and the fingers and thumb flexed and the hand flexed at the wrist almost at a right angle with the forearm in the radio-palmar position. The hematoma was incised, profuse bleeding followed, and subsequently the deformity gradually subsided, having been caused by the irritation produced by the hematoma.

Biehaut reports a case of club-hand due to fracture of the ulnar at birth, with subsequent loss of bone from suppuration, giving rise to inequality in the length of the bones of the forearm, causing a sharp deflection of the hand towards the ulnar side.

The congenital club-hands differ widely from the above described cases, and may be divided into three varieties: 1st, Those where the skeleton is complete and well formed; 2nd, where the skeleton is complete but ill formed; and 3rd, where the skeleton is incomplete and distorted. Various writers say that the majority of

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cases come under the 3rd head, but the author's personal experience does not agree with this.

In many cases, club-hand is associated with club-foot, or some other abnormality of development. The direction of the deformity may be either in flexion, extension, abduction and adduction, or a combination of the two, the most frequent being the radio-palmar variety.

In those cases where all the bones of the hand and forearm are present, the prospects of a good result are more favorable than where there is absence of one or more bones, and in these milder cases, when seen early, it is sometimes possible to restore the hand to proper shape and function by constant manipulation and rotation of the parts, which are to be held in their improved position by some fixed dressing, as the plaster-of-Paris bandage, the dressing being changed from time to time as the deformity is reduced.

Section of the tendons, ligaments or fascia may be necessary if the case is not seen in the early stages. Many of these structures are so situated as to make open section preferable to the subcutaneous method; and if the flexor tendons have to be divided, it would seem better to operate in the forearm instead of the hand, and to split the tendons longitudinally, and after having gained such additional length as was needed by sliding the ends past each other, to suture them together once more.

In an aggravated case of congenital club-hand and club-foot of the right side, associated with lateral curvature of the spine, the author had operated in the following manner: The club-hand was very marked. The radius and thumb were absent, as well as the first metacarpal bone and a certain number of the carpal bones. The ulnar was curved in its middle at an angle of about 30° towards the side where the radius should have been. The

hand was almost at right angles with the forearm, bent towards the radial side, and flexed on the forearm. The carpus did not articulate with the ulnar, but was attached to it by means of firm ligamentous bands. An osteotomy was first done on the ulnar to correct the curve, and after the bone had united in a straight line, endeavors were made to stretch the contracted soft parts on the side of the arm where the radius should have existed. After several weeks of traction the hand could not be drawn far enough down to permit the ulnar to slide above the carpus. Through an open incision the ligaments between the ulnar and the carpus were divided, the intention being to form an artificial joint between the lower end of the ulnar and carpus. It was found impossible, however, to draw the carpus clear of the ulnar, and therefore the styloid process of the ulnar was cut off, the os magnum and unciform removed, and the end of the ulnar put into the gap in the carpus thus formed. The bones were not wired in this position, with the idea that the hand might be more useful if this were not done, and it being of course feasible to wire the bones later on, if it should be deemed necessary. The shortening of the extremity, caused by the removal of this amount of bone, seemed preferable to the author, to the very extensive division of tendons and muscles which would have been necessary to permit the carpus to be pulled down. The hand is now approximately in line with the forearm. There is free motion at the wrist, and the ability to grasp objects is greater than it was before the operation, although extension of the hand on the wrist is poor, absence of the radius making a very imperfect joint.

In cases like that described by Bouvier which is in the Dupuytren Museum, where such carpus as is present articulates with the ulnar on the side where the radius

should have been, the radius being absent, the proper operation would seem to be the division of the ulnar just above the articulation with the carpus, and then to turn it at right angles, letting the outer surface reunite with the end of the ulnar, and thus bring the hand into a straight line with the arm, at the same time preserving the wrist-joint.

Society Proceedings.

THE CANADIAN MEDICAL ASSOCIATION.

Reported specially for THE CANADA MEDICAL RECORD.

The twenty-sixth annual meeting of the Canadian Medical Association met in Victoria Hall, London, Ont., Wednesday, Sept. 20th, at 11 a.m.; Dr. Chas. Sheard, of Toronto, as President.

The first session was devoted to business, there being no papers read.

Dr. BRAY of Chatham, after thanking the members for their kindness and consideration to him as President for the last year, introduced Dr. Sheard as his successor.

Dr. BIRKETT, of Montreal, Secretary, read the minutes of last session, which were adopted.

A motion was then introduced, asking that fees be required only of members in actual attendance at the Association. Another, that after this those members who were to read papers and were unable to come should telegraph such inability to the Secretary, so that the programme might be more easily carried out.

The SECRETARY then read a communication from the National Bureau of Bibliography, Washington, D.C., informing the members of its value as a storehouse of Medical literature, from which they might procure information on any medical subject in which they were interested as students or lecturers.

Drs. McGregor, Campbell, Butler, Hobbs and Weld, of London; Drs. Starr, B. E. McKenzie and J. N. E. Brown of Toronto; and Dr. Smith of Quebec, were elected as members of the Association.

The PRESIDENT proposed that some provision be made for reporting the proceedings of the Association, and named a committee to arrange for such reporting. Dr. Brown of Toronto was chosen to do the work.

The Nominating Committee was then balloted for, Drs. McPhederan and Bray being

appointed scrutineers. The result of the ballot showed the following to have been elected: Roddick and Stewart, of Montreal; Fulton of St. Thomas; Graham, McPhederan and Macallum, of Toronto; Olmstead, of Hamilton; Harrison, of Selkirk; Holmes, of Chatham; and Bucke, of London.

Drs. R. A. Reeve, J. F. W. Ross, H. A. Macallum, T. S. Harrison and Holmes, of Chatham, were chosen as the Committee on Ethics.

The subject of a uniform Canadian Pharmacopoeia was then discussed, and a committee, consisting of Dr. Blackader, of Montreal, H. A. Macallum, of London, and Jas. Macallum, of Toronto, teachers of therapeutics, were appointed a Committee to memorialize the Government in this regard.

AFTERNOON SESSION.

After the opening business, the PRESIDENT proceeded with his address, whose elegant periods held the Association in rapt attention and elicited the most hearty applause.

The effort was a most masterly one; the substance of his address was solid, and the effect of its brilliant delivery can be appreciated only by those who have listened to the magnificent oratory of the Doctor when he is speaking on some congenial theme.

He expressed gratitude to the Association for his election, saying that he felt honored to fill such a position, which had formerly been filled by men who had made the profession of medicine in Canada illustrious. He combated the statement made by some that the influence of the Association was on the wane and its work usurped in part by Provincial institutions. It had for twenty-six years stood out against charlatanism, it had developed a feeling of friendship and unity among the profession, it had stimulated and helped men to professional excellence, and had given medical men an increased love and zeal for their calling. It had not outlived its usefulness. Such men as Howard, Ross, Osler, Hadder, Workman and Wright, not to speak of men whose advancing years prevented them from attending this Association, were examples of all that was good and noble and inspiring to the younger members of the profession. If a man would do good work he needed to devote his whole attention to his profession. It was unfortunate that some of the younger men presumed, that because they thought they had the latest and most improved methods they should parade them in such a way as to reflect on their older colleagues. Thackeray had asked how it was that the evil which men did spread so widely, whilst each good, kind word seemed never to take root and blossom.

The President went on to say:—"It appears to me scarcely conducive to professional unity that we should have in the various provinces of

the Dominion separate licensing bodies, which confer the privilege of practising only for the province, and that those of us who to-day may reside in Ontario, in travelling to Manitoba or British Columbia, require there to pass a period of naturalization before we can even be examined, and then to again pass an examination which proves our qualification to practice,—and this in our own country. Surely, we are all Canadians, and if the spirit of the time means anything, we are united in patriotic feelings and national progress. Why should it be different in medicine? I may express the earnest hope that the time is not far distant when there will be some central examining board, or boards, for the whole Dominion, when a license from such a body will be a qualification to practice from one end of the country to the other.” (Applause). The Doctor then spoke of the great strides medicine had made as a result of bacteriology investigations. Curative methods followed correct diagnosis. Bacteriology was a practical scientific means to aid in this direction. He saw within the next decade a solution to the difficulty which besets the cure of phthisis and such diseases whose causation had during the past decade been established. The science of medicine like others must depend upon the co-relation of facts,—upon the comparison of cases alike in many respects but differing somewhat in their phenomena. Much difficulty there was in ascertaining what cases were sufficiently similar to become comparable,—due to insufficient and erroneous records of the phenomena observed. Few men could for and by themselves see and describe the things before them. It took a long time before men could see the difference between measles and scarlatina, between typhus fever and typhoid. Plato said: “He shall be a god to men who can rightly divide and define.” Men, the speaker said, who have this faculty we cannot produce by any system of education; they come, we not know when or why. It was science, he said, that laid the basis upon which were wrought the revelations in practical medicine.

“Science seams and scars the detested face of hypocrisy and lies, adds beauty to beauty, grace to grace, truth to truth. It decks the flower of the field with loveliness till all the universe beats with one heart, pants with one breath. It goes hand in hand with heart. When the tale of great deeds ceases to thrill, when the awe has vanished from the snow-capped peak and deep ravine, when the lily of the field becomes no longer beautiful, when the tale of suffering causes no pity, then, indeed, and not till then, may science be said to have devoured art.”

Science and practice, he said, should go together. It should be the work of the pathologist to study the etiology, diagnosis and progress of the case. Paget was a pathologist

and surgeon; so was Billoth. Koch was a general practitioner; Cheyne, a consulting physician. In the lines of scientific attainment, Canada was fully abreast of the time. There were too many men in our country, however, who were possessed with the sordid ambition of the utilitarian, who thought they could not leave their practice a day to gather such knowledge and enthusiasm, have their powers of observation quickened, receive such mutual benefit as would come to them from attending medical associations. The President eulogized the good work of our colleges and the Medical Council of Ontario. In concluding, the President said the Government of the province was liberal, leaving to the profession the ordinance of its own laws, and did it show worthy intelligence on the part of those claiming to be ornaments of the profession to urge upon the proper material body the wisdom of withdrawing from them what was justly and legitimately their own? The masses sent their representatives to represent them in certain issues, and if they did not do so they changed their representatives. “This is one law of political economy throughout the world. Have the physicians of our Province not enough intelligence to be entrusted with some privilege?”

Dr. Hingston was voted to the chair. Dr. BRAY moved, Dr. REEVE seconded, a vote of thanks to Dr. Sheard for his address. This was carried with applause. The President made a suitable reply.

Dr. J. E. WHITE of Toronto, seconded by Dr. BRAY of Chatham, made a motion, to the effect that a committee be formed to report some scheme whereby the barriers that exist to inter-provincial registration might be overcome, so that practitioners in one province might be enabled to practise anywhere in the whole Dominion without re-examination, and that such committee be composed of Drs. Praeger, British Columbia; Hingston and Mills, of Montreal; Waugh, of London; Sheard, of Toronto; Harrison, of Selkirk; Taylor, of Goderich; Worthington, of Sherbrooke; and Ross of Toronto,—Carried.

The next feature was the report of a case of eclampsia by Dr. J. CAMPBELL, of Seaforth, Ont.

Patient aged 32 complained of headache extending down neck to shoulder. Without physical examination he administered something for what he supposed was neuralgia. He had not noticed that she was pregnant. In three hours patient had convulsions. Was called again, and found patient suffering severe head pain, and also in the epigastrium. Temp. normal; pulse full and bounding. Found patient to be about 7 months pregnant. Administered an enema of 5i of chloral. This induced sleep. Had administered elaterium, which was soon effectual. Was unable to get urine. In few hours called, and while about to give another injection patient

took another convulsion; before CHCl_3 could be given. Found urine full of albumen on examination. Very soon patient had another convulsion. Repeated enema. Found os dilated to size of quarter. Ruptured membranes. Labor pains came on, and after a sleep till 3 p.m. (case having commenced at 11 p.m. day before) was delivered of living child. Gave $\frac{1}{2}$ ergot half an hour before delivery. Placenta delivery normal. No hæmorrhage. Administered a diuretic mixture of pot. acet. and digitalis. Headache disappeared and all symptoms abated.

The Doctor concluded his paper by saying that the subject was one that required further investigation, but thought that the following statements were justifiable in the light of modern pathology:—

1st. Cell activity both of mother and fœtus produced substances pernicious to mother, if not excreted. 2nd. The excretory function was inadequate in the pregnant. 3rd. The unknown accumulated poison caused the eclamptic seizure. 4th. The convulsions are believed to be the result of anæmia of the brain caused by the contractions of the arterioles,—probably by direct action of some poison on the brain substance itself.

On account of the intense muscular action, the blood was driven into internal organs,—brain, kidneys, etc., causing apoplexy and abrogation of the renal function, etc. Treatment, he said, should be directed to elimination, diminishing of the nervous sensibility; if convulsions ensue, to save child without adding risk to the life of the mother; and lastly, to guard the mother from injury during the attack.

Dr. LAPHORN SMITH expressed entire approval of what Dr. Campbell had said in his paper. He thought the cause was due to pressure on the venous circulation of the kidneys, causing nephritis. He did not agree that the anæmia of the brain was the beginning of it. The nephritis caused the albuminuria; the albuminuria caused the anæmia. The indication for treatment was to remove the pressure by lessening the size of the uterus. He favored the use of chloral to assist in the dilatation of the os and to lessen reflex action. He thought hastening labor did not tend to cause convulsions.

Dr. HARRISON outlined the history of a recent case of his, where he employed bleeding, a remedy he had spoken at some length about in the treatment of this affection at the meeting of the Ontario Medical Association. He bled freely with immediate and permanent effects. He employed as well enema of chloral and brandy.

Dr. BETHUNE, of Seaforth, corroborated what Dr. Campbell had said regarding his case. He was in favor of bleeding in sthenic cases,

not in anæmic, but he regretted that the young practitioner of to-day did not know how to perform this simple and often effective operation.

Dr. IRVING, of St. Mary's, asked if it were proper to give ergot in eclampsia. Did it not cause contraction of the arterioles,—a thing to be avoided? Dr. Smith had said that the pressure of the fœtus *in utero* was the cause of the convulsion. How was it that they often did not occur until after delivery?

Dr. HOLMES, of Chatham, said he was reminded of one thing in what Dr. Campbell had said,—the danger of making too cursory an examination of the patient. Dr. Holmes pointed out the benefit derived in causing profuse sweating. He leaned to the theory that the convulsions were due to the circulation of some toxic element in the blood, independent of the nephritis.

Dr. CAMPBELL closed the discussion.

Dr. CANNIFF, of Toronto, then gave an address on "Sanitary Science,—some of its Effects."

Sanitary science, he said, was not a distinct and separate science, but rather a development of medical science, and that the medical man should be employed not only to cure but to prevent disease. He advocated that we should have special lists on the subject. He also advocated the same observation by individuals and families in regard to sanitation as is done in the case of the State and the municipalities; and, as it was desirable to legislate in regard to preventible diseases, so the principle was equally applicable in relation to individuals and families. It was nobler to prevent than to cure. The principles of hygiene should be taught by the parent and continued in the school. He advocated the principle of families employing a medical man by the year, who should make regular visits and advise as to sanitation; by so doing sickness would be prevented.

Dr. ARNOTT thought the idea of families employing medical men by the year good in theory but bad in practice. His experience was such. He also thought it would be a bad education to the family itself. He thought the importance of a knowledge of sanitary science by medical men in the cure of disease should be emphasized as well as the prevention of it.

Dr. BETHUNE liked the idea of employment by the year, if possible. His experience had been that, having agreed to a certain amount of his services, he was called so frequently as to make it non-paying. If families could be educated up to it, it would be well for the country, and much disease prevented.

Dr. WESLEY MILLS thought that it would be practicable for the physician to look generally to sanitation, and to be paid extra when specially sent for,—family tendencies would then

be understood. Until physicians were employed in the way mentioned, the best results would not be obtainable. He thought the appointment of specialists a good thing, and stated that in some places this was being agitated.

Dr. CANNIFF thought he had been misunderstood,—he only intended saying if regulations to hygiene worked well in municipalities so it ought to in families. Statistics show that the practice of hygiene is a saving operation,—saving the man and saving the labor.

Dr. ANGLIN, of Verdun, followed in a paper on, "The General Practitioner and the Insane,"—a very practical paper. The subject of insanity was one which had been left alone too much by the general practitioner. It was important that he should know more about it, for on him rested the diagnosis of insanity, possibly the administration of treatment, the recommendation to hospitals, and the certification of the patient's mental condition. Generally speaking, it was better to advise hospital treatment, but in some cases this would be impossible. It was much less expensive, and the change of environment was generally beneficial. He was glad that the old prejudice against insane hospitals was becoming lessened. It should be taught to the general public that insanity was a disease, not a crime. The Doctor then described the hospital of to-day, showing that it was not a place to be shunned as was the one of days gone by. If a man were called on to treat a case of insanity, he should recommend a change of scene, the employment of one or two trained nurses. Relatives generally made poor attendants, as did also ordinary sick nurses. Sleeplessness should be immediately combated by giving moderate exercise, a drive, a meal or a hot bath. Of remedies, alcohol, hyoscine, paraldehyde, sulfonal, chloral hydrate (and opium in cases due to pain) were useful. Constitutional treatment should be attended to strictly. The Doctor outlined the points necessary to observe in making out certificates, laying special emphasis on the recording of phenomena actually seen by the examiner. He criticized the stupid methods of admission in certain States, but commended the progress of Canada in this matter. A certain amount of formality was absolutely necessary, and the Doctor should be exceedingly exact in replying to the questions on the blanks used. It was wise to find out all one could about the patient before interviewing him; deception should never be used with the patient, for this often rendered him less amenable to treatment. It was sometimes exceedingly difficult to detect symptoms, so careful to conceal them was the patient often. Three things should be noted,—acts, appearances and conversation. The patient should be told frankly that he was sick and needed hospital treatment.

This paper was discussed by Drs. Matheson,

Arnott and Mills. Dr. Anglin closed the discussion.

Dr. HARRISON of Selkirk then followed with a paper on, "Is Alcohol in all Doses and in all Cases a Sedative and Depressant?"

He had formerly thought alcohol the great stimulant, and the physician who failed to administer it was culpable. Temperance physicians had refused to administer it, for fear their patients would acquire the drinking habit. The subject was a scientific one, and should be discussed as such. If alcohol was a powerful sedative and depressant, as some claim, the use of it for so many generations would have caused untold injury, and the number of deaths caused by using a sedative instead of a stimulant unaccountable. He spoke of a case in his practice of post partum hæmorrhage which promised to end fatally, and while preparation was being made to inject blood, brandy had been administered freely per os and per rectum, and under it the patient rallied and recovered. In a case of typhoid fever lasting seven weeks, where the patient seemed dying of exhaustion and heart failure, after two weeks of a diet of port wine only, the patient recovered as by a miracle. Another case of puerperal fever,—an extreme one,—with pulse 140 to 150,—all medication was abandoned, and brandy and port wine in a little milk and beef essence were given, and effected a permanent cure. The family said a teaspoonful had increased the fever. He at once administered two table-spoonfuls.

When a patient was nearly moribund,—when a feather's weight in the wrong scale must be fatal,—and brandy was administered, if the brandy acted as a sedative the result must be fatal; but the fact that the patient rallies shows it cannot be a depressant.

Dr. ARNOTT said he had some diffidence in discussing the subject, as he seemed a "lone bird in the tree." His views were and had been for years that alcohol was not a stimulant in its direct action. The question under discussion in other words is, "Does alcohol or could anything under varying conditions give the same results?" Suppose the principle were applied to water, although under some circumstances it causes death, yet no one would say it was a poison; the direct and primary action of water is nourishing. The profession are not divided at present as to the sedative action, because all use sedatives to bring about a stimulating result. There was, he said, not so much difference between Dr. Harrison and himself as appeared on the surface. Although opium was a sedative, we get stimulating results from it. He mentioned a case of his in practice, the setting of an old lady's arm, a Colles' fracture. He had given her a great deal of pain, and suddenly she became white, and pulse imperceptible. He was afraid the patient was dying.

He thought it clearly the result of shock, and called for whiskey, not as a stimulant (being opposed to that), but to relieve the shock; none being in the house, he gave the patient chloroform, after which the pulse became strong, and the operation was completed. He had another case of typhoid fever, in which the depression was very great, and in which he administered whiskey in large doses,—an ounce every hour. Being alarmed, he called in another doctor, and they administered $\frac{1}{8}$ grain of morphia hypodermically, and that did much more good.

Dr. BETHUNE said alcohol was in one case a stimulant, in another a narcotic, and in another a sedative, according to the condition of the system. If taken in big doses it was a narcotic. Perhaps some of them had felt the effect. (Laughter.) In neuralgia it was a sedative. When people took a tumblerful at night to put them to sleep it was a narcotic.

Dr. GARDINER, London, said that by the use of alcohol the pulse got stronger, the eye brighter, the skin warmer and the body invigorated. Whether it was called a stimulant or a narcotic, it should not be used carelessly, but only when there was reason for it.

Dr. MILLS, of Montreal, thought it was a subject demanding careful scientific study, especially as its elementary principles were taught in the public schools. The doctor said the necessity for experiment was absolute, and they were not prepared yet for dogmatism. He condemned the present school books as extreme. The children were taught that alcohol under all conditions was a poison. The medical profession should do something to counteract this.

Dr. ARNOTT said that alcohol was termed a stimulant, an anodyne, and a narcotic. This was perplexing. The fact that the hospital having the lowest death rate in London, England, did not use alcohol he made his excuse for speaking on the subject.

Dr. LAPHORN SMITH spoke of the experiments shewing the effect of alcohol on the muscular power; how that, soon after administration of the alcohol, the individual tested could lift much more, but when the reaction had set in, considerably less than at first. It was certainly a temporary stimulant. It affected the great sympathetic, which contracted the arterioles, more blood being forced into the coronary arteries, thus strengthening the heart.

Dr. H. A. MACALLUM said there seemed to be physiological evidence to show that all narcotics and poisons were stimulants. The respiratory stimulus was a poison. It could not be that CO_2 , the respiratory stimulant, and ultimately poisonous to that centre, could be a stimulant as secondary to narcotic action. All stimulants for secretion, respiration and circulation ultimately were narcotic and poisonous. Anæsthetics were stimulants in small doses. It

could not be argued that CO_2 is a natural stimulant and acts as a narcotic.

Dr. HARRISON closed the discussion.

Dr. B. E. MCKENZIE presented a bad case of lateral curvature, in which he had used a raw hide spinal support. The patient could be stretched four inches, so much was the curvature. He knew of no other treatment in such a case. It was fitted to a plaster Paris model, and had no seams. It fitted smoothly, and seemed to afford much relief. This was the first time Dr. McKenzie had tried it.

EVENING SESSION.

Dr. HINGSTON, Montreal, then gave an address on Surgery. It consisted of an historical review of the subject. He held that in Egypt, before the time of Moses, many so-called modern operations were practised. The Greeks considered surgery a divine art. Pythagoras about 600 B. C. elevated surgery to a science. The Egyptians and Greeks practised nephrotomy, used tents, issues and moxas, and trephined the skull; they also practised percussion as an aid to diagnosis, and drew fluid from the chest. Hippocrates made use of immediate auscultation as a means of recognizing disease. But the fall of the Macedonian Empire seriously interfered with the progress of surgery. The Alexandrian school were skillful in abdominal surgery. They first used the catheter. 2200 years ago Ammonius crushed stone in the bladder. There was another retrogression in the science at the time of the Cæsars. Celsus found that there might be rupture of brain substances without fracture of skull. He was first to ascribe the *contre-coup*. Heledenus opened into the bronchial tubes. The Arabians were credited with greater proficiency in surgery than history will justify; but to them we owe the preservation of Egyptian surgery. The suturing of wounds was practised by Albucasis, also the incising of the kidney for abscess. The Council of Tours forbade the clergy to spill blood. By this prohibition, surgery was divorced from medicine, and got a serious setback. When Columbus discovered America, the physicians of Europe were not superior to the medicine men of the Aborigines of America. Vesalius laid the foundation of modern surgery. Paré advocated cupping for displacements of the uterus. Wiseman, in Britain, was original but crude. His reports of successful treatment of cancer are so remarkable as to arouse suspicion as to the accuracy of his diagnosis. Wiseman believed in the magic royal touch for the King's evil.

Surgery, the speaker went on to say, preceded medicine in this country. The governor of Nouvelle France was always asking for surgeons to be sent out. The people did not need

physicians. Dr. Hingston then described the marvellous advances of surgery during the past forty years in the treatment of many surgical cases, but was sorry that in some cases this divine art had degenerated to a commercial question, owing to the greed for gold spirit which has extended to some of the members of the profession. He especially cauterized the practice of those one-ideal gynæcologists, who referred all female disorders to the uterus and instituted a daily tinkering process as a means of obtaining money.

Dr. ECCLES' paper, "Movable Kidney with two cases of Nephrorrhaphy," came next. This condition, he believed, was often overlooked, and something else treated (often hysteria) for it. This resulted from neglecting to examine the kidneys—a matter always to be attended to in obscure cases, with symptoms of hysteria, melancholy and general nervousness and dyspepsia. This organ having no special support was in danger of displacement. The thirty cases Dr. Eccles reported were all females. Patients had a dragging down feeling, or aching in the back or along the urethral lines. In most there was dyspepsia, accompanied by constipation, diarrhoea occurring in only four. In six there was an exacerbation of symptoms during menstruation. In some seven there was inability to lie on the side opposite the displacement. Intermittent hydro-nephrosis was observed in seven. Dr. Eccles then outlined two cases fully. The first had most of the typical symptoms for a number of years, the most prominent being the frequent attacks of severe pain, which at first lasted about an hour and latterly forty-eight. These were accompanied by swelling inside, followed by its disappearance and great flow of pale urine. The Doctor could feel the kidney. Had support and pad applied with complete relief. Movement no doubt of the organ had kinked the ureter. The speedy relief of this condition was conservative to the kidney.

In another case reported the abdominal support failed to give relief. Operation was advised. After the usual incision the capsule was opened along the convex border one inch in width. Two silk-worm gut sutures $\frac{3}{8}$ of an inch deep were passed into the parenchyma, two catgut through capsule and fatty capsule above and below, continued through the muscle and fasciæ. The fasciæ were united by separate catgut sutures before those through the kidney and its capsule were tied. Good recovery.

In a second case of operation Dr. Eccles did similarly, but did not dissect up capsule, as it was thickened, and a cystic condition appeared underneath. A good recovery followed.

Dr. HINGSTON pointed out that a misplaced kidney was more easily felt if the patient leaned forward during the examination. He howed how one might be mistaken, by telling

of a patient who came to him suffering in this way, upon whom double ovariectomy had been done for its relief. This mistake would not be made if one, by grasping the kidney and making gentle traction downwards, found that pain was experienced, while pushing it upward gave relief. The reverse would take place in the case of the enlarged ovary. In many cases he thought operation unnecessary.

Dr. BETHUNE had had a few cases. They were all in women on the right side. The trouble proved most annoying during pregnancy. One case he had, the kidney on removal was found to be cancerous. He thought cases of displaced liver were more common than was generally supposed. He did not see how operation could help the patient much, as there would be difficulty in retaining it in position, even after operation, so little was there to which it could be solidly attached.

Dr. BELL, of Montreal, agreed that many of these cases needed no treatment. The condition was often accidentally discovered. But in cases where hydro-nephrosis developed, some operation seemed to be necessary. He had no personal experience in the use of the pad and hand, and did not think it likely they would do much good. He had operated on patients where this treatment had been tried, and found to be a failure. He thought the operation of nephrorrhaphy in many cases effectual in making a permanent cure. At first he was sceptical regarding the operation, but he got over that. He knew of no other means of relief.

Dr. LAPHORN SMITH agreed with Dr. Bell. The frequency of cases he believed to be due to improved methods in diagnosis. Formerly they were called hysteria. Dr. Smith wished Dr. Eccles would show his ingenious method of retaining displaced kidney in such cases as are not bad enough for operation. He was reminded of the principal causation of the trouble, when he heard a young man remark to his friend, after a tight-laced young lady passed by them: "I wonder where she puts her thirty yards of intestines." He (the speaker) had not seen any cases of men with this affection. He considered the ounce of prevention to be a modification of the corset.

Dr. ECCLES closed the discussion.

Dr. H. S. BIRKETT, of Montreal, read a paper describing a "Case of Sub-cordal Spindle-celled Sarcoma and its Successful Removal by Thyrotomy." The Doctor outlined a history of the case. The principal symptoms were marked by dyspnoea, hoarseness until almost complete aphonia occurred; in the later stage, almost complete suffocation when in the prone position. Patient was thin and anæmic, was pregnant, was compelled to sit upright with mouth open. On examination, the laryngoscope showed a large sub-glottic tumor nearly filling the lumen of the larynx, dusky red in

color; vocal cords free. Tracheotomy was performed, low down; a tube made breathing easy. Labor was induced; tumor, strange to say, decreased in size. In three weeks tumor was removed by thyrotomy. Incision was made between the alæ down to upper border of cricoid. On separating, tumor was well exposed; was attached to right ala of thyroid just below vocal cord. After removal, site was cauterized with chromic acid. Three deep silk-worm gut sutures closed deeper structures, and superficial ones the wound externally. Microscopical examination revealed it to be a spindle-celled sarcoma. The condition was unique. The operation of thyrotomy was practically devoid of danger in itself; its result depended much upon what it was done for. As to its employment in tuberculosis, opinion was divided. The Doctor closed by detailing at length why he adopted the method he did rather than removing the growth *per vias naturales*.

Dr. OSBORNE, of Hamilton, commented on the decrease in the size of the tumor after delivery. He supposed it was on account of some reflex condition between the uterus and the tumor.

Dr. BIRKETT explained that the whole arterial system was in a state of great tension during pregnancy; after delivery this would lessen much, and hence there might be a lessening in the size of the tumor due to the fact.

A splendid banquet was given to the visitors by the local members of the profession at the Tecumseh House, beginning after nine o'clock. About 200 sat down. Dr. Hodge presided, and introduced the toast list. "The Queen" was honored with the National Anthem. Dr. Hingston of Montreal, and Dr. Praeger of British Columbia, responded for "The Dominion" in witty speeches. Dr. Harrison of Selkirk spoke on behalf of the Ontario Medical Association. The Chairman in toasting "Our Guests" warmly welcomed the visitors. He regretted that the meeting was at the same time as the Western Fair, as it had interfered with arrangements. Dr. Sheard, the President, replied warmly. Drs. Caniff, of Toronto, and Birkett, of Montreal, also spoke to the toast. Mr. C. W. Davis sang, and the "Ladies" were proposed by Dr. J. S. Niven, vice-chairman, and championed by Drs. Thornburn and Anglin.

THURSDAY MORNING.

Dr. HOLMES, of Chatham, read a paper, which consisted of a report of two cases of laparotomy for unusual conditions. The first gave a history of miscarriage preceded by hemorrhage, and this was followed by pain in the left iliac region, where a swelling was discovered like an orange in size and shape, two

inches to the left of the uterus, and fluctuating. Laparotomy was performed, and an ovary containing three ounces of pus removed. The abdominal cavity was flushed, and usual dressings applied; no drainage tube. The important point in the case was that there was no disease of the tubes. This was unique as far as he was able to make out from the records.

The second case Dr. Holmes had seen after the patient had been ill ten days. Pain was present in right iliac region, where the attending physicians detected some hardness. Chills and fever, constipation, vomiting and great prostration were succeeding symptoms; also great tympanites. No tumor could be made out at this time. Exploratory incision was deemed necessary. Appendix was sound. There was no obstruction, but peristalsis was absent. The gut was stitched to the wound, with the idea of incising if bowels did not move soon. This had to be done, the patient being then almost *in extremis*. A copious evacuation of faecal matter from the fistula took place. Stimulants could then be retained, and the patient improved. But the fistula was a great annoyance. Dr. Holmes made several unsuccessful attacks to close it, but failed. Patient was then transferred to Harper's hospital, Detroit. Resection of the affected portion of bowel was made, and the ends joined by Murphy's buttons. Patient made a good recovery. The Doctor shewed the kind of button used, and gave a report of operations in which it had been successfully employed.

Dr. ATHERTON agreed with Dr. Holmes that abscess of the ovary without affection of the tube was rare. In regard to peritonitis with paralysis, he found puncturing, to allow the gas to escape, a good measure,—two or three times if necessary. He had seen no trouble arise from such proceeding. This might be tried and laparotomy avoided.

Dr. HOLMES replied to this by saying that he had employed this measure, but it was in cases where the abdominal walls were thin. Where the walls were thick, as in the case reported, he considered it unwise. In fact, when the abdominal wall was opened, one of the assistants introduced a small trochar, but without relief of the symptoms.

Dr. BELL, of Montreal, then presented a paper on "Some unusual conditions met with in Hernia operations." The Doctor reported five cases, all of marked interest. The first was a case of hernia in a woman, æt. 55. There were not the symptoms of strangulation, but she suffered great pain. Temp. 102, pulse 100, bowels open. The tumor was situated in Scarpa's space in right groin, looked livid red, was indurated at the base, and fluctuating,—a pointing abscess, in fact. It was opened: a pint of foetid, sanious pus escaped. A mass of

omentum protruding was cut off. Then the interesting point in the case was noticed,—in the centre of the mass was a tubular cavity, resembling the large intestine. It was stitched into the skin wound. To the outer side of the mass the appendix was found strangulated and sloughy. This was removed and bowel returned. Patient made a good recovery.

The second case was one of congenital inguinal hernia attached to the bottom of the tunica vaginalis. The hernia was easily reducible, but would not stay so. It was so troublesome, operation was decided upon; was omental, and the peculiarity was, which accounts for the inability to retain it, a hydatidiform cyst growing from the omentum and adherent to the bottom of the sac of the tunica vaginalis testis, just long enough to allow the hernial contents to escape within the internal ring, and yet short enough to maintain constant traction upon this portion of omentum, and bring it down in spite of any truss. The protruding omentum was tied and the cysts were removed. Patient made a good recovery. This was a unique case, Dr. Bell thought.

The third was a case of congenital cæcal hernia in a child three years of age. Hernia had existed from birth, and was irreducible. Radical operation done. Through the peritoneum, the cæcum and ilium could be made out, and were found adherent to the cord. Even after splitting canal it was impossible to reduce. When peritoneum was opened and traction made on ilium, it readily slipped back. The superfluous neck of the sac was dissected away and the remainder sutured down around the cord, the conjoined tendon brought over and sutured to Poupart's ligament, and canal closed by a suture.

The next was a most interesting case where there was hernia of a tubercular ovary and tube through the inguinal canal of a female infant. It was diagnosed omental hernia,—was solid to feel, freely movable, pediculated, and gave an impulse when child cried. Was exposed but seen not to be omentum. Resembled undescended testicle, but patient was female. Was removed,—diagnosis still uncertain. Operation finished successfully. Subsequent microscopical examination revealed tubercular cystic ovary.

The final case cited was a most interesting one,—suppurative inflammation of hernial sac simulating strangulation; onset sudden (from a fall) and constitutional symptoms rapid, calling for immediate action. Cutting down, sac was found very thick and œdematous, from which, upon incision, half an ounce of sero pus escaped. It was occluded above. Another incision was made into the sac above the occlusion, and a loop of small intestine scarcely constructed slipped back into abdomen. Patient got entirely well. The Doctor inclined to think

patient had suffered from hernia before, that sac had become shut off, and that the reputed recent cause merely pressed it further down, and the manipulation for reduction had set up an inflammation, possibly through the agency of the *arnæba coli*, which went on to suppuration.

Dr. CANNIFF asked how Dr. Bell diagnosed the omental tube which was cut off from intestine.

Dr. BETHUNE detailed at length a case of strangulated hernia which was not operated on on account of stubbornness of patient. Suppuration occurred, and a fæcal fistula established, which finally closed, and patient made a good recovery.

Dr. McFARLANE, president of the Ontario Association, and Dr. Temple, delegate from that body, were invited to seats on the platform.

Dr. BRYCE was not present to read his paper on Prophylaxis in Tuberculosis, but his paper was handed in as read. It was, the writer said, pleasurable to see so much attention directed to a disease causing a greater economical loss than any other agent except alcohol. He gave some condensed results of a study of the subject taken from the mortality returns of the Registrar General's Department of Ontario, and arranged the table so as to show the number of deaths occurring in persons of the same family. He also gave a tabular statement of the total mortality returns of Ontario Institutions for the Insane for 1892, showing the proportion of deaths from consumption among patients. He also presented a tabulated list of the various diseases, showing from the Annual Report of the Inspector of Public Health for 1892 a large proportion suffering from this disease. Five per cent. of the total inmates of our hospitals suffered from this disease. The elements in prophylaxis partook of three qualities,—individual, municipal and governmental. Individual prophylaxis depended almost wholly upon the intelligence of the infected person, his habits of life, and the extent to which he is impressed with the duty of protecting others. As to municipal, the first measures are largely those of improved local sanitation. As to governmental, it consists mainly in giving direction, financial support and legislative sanction to municipal efforts.

He said had he not been an interested and active spectator for two years of the manner in which legislation has kept in touch with public and professional opinion, he would think this visionary. He cited the numerous Acts providing for treatment of the blind, dumb, etc., and thought from the fact that there were but two limits to the class of municipal and governmental work, viz., the degree to which the public are informed regarding the need for work in this direction and the extent of municipal and governmental financial ability. This

work was not to be considered relegated to the police but to the action of intelligent, Christian men and women. The two objects to be held in view were : (1) the alleviation or cure of the tubercularized patient, and (2) to lessen the danger to the healthy public. In the higher altitudes of our Province we had suitable climatic conditions. In such places homes might be established for patients,—places where they may go and *live*. These places might be made self-sustaining, as many of the patients would be able to work. That such homes would be popular may be concluded from the success of such semi-private institutions in Germany.

The NOMINATING COMMITTEE presented their report as follows :—It first recommended that the next place of meeting be St. John, N.B.

Dr. CANNIFF did not favor going so far. Few, if any, physicians came from that section to the annual meetings in Ontario.

It was explained that St. John was tacitly promised the meeting next year, in view of London getting it this year, on account of the movement westward to the World's Fair.

Dr. PRAEGER urged the claims for British Columbia for 1895. The St. John recommendation was adopted.

The report after a few amendments resulted in the election of the following officers for the ensuing year :—

President—Dr. Harrison, Selkirk, Ont.

General Secretary—Dr. F. N. G. Starr, Toronto,

Treasurer—Dr. Small, Ottawa.

Vice-President for Ontario—Dr. F. R. Eccles, London.

Vice-President for Quebec—Dr. Stewart, Montreal,

New Brunswick—Dr. Christie, St. John.

Vice-President for Nova Scotia—Dr. Muir, Truro, N.S.

Vice-President for Manitoba—Dr. Spence, Brandon.

Vice President for North-West Territories—Dr. Newburn, Lethbridge.

Vice-President for Prince Edward Island—Dr. Tyler, Charlottetown.

Vice-President for British Columbia—Dr. McKechnie, Nanaimo.

Provincial Secretaries elected were :—Ontario, Dr. I. Olmstead, Hamilton ; Quebec, Dr. Anglin, Montreal ; Nova Scotia, Dr. Keen, Cowe Bay ; New Brunswick, Dr. McLaren, St. John ; Prince Edward Island, Dr. Johnston, Charlottetown ; British Columbia, Dr. Walker, New Westminster ; Manitoba, Dr. McDiarmid, Winnipeg ; North-West Territories, Dr. Calder, Medicine Hat.

It was moved and seconded that all the papers be read in the order received by the Secretary, and if the writer be not present at the time it should be read, that the paper be

placed at the bottom of the list ; and, further, that it was desirable that an abstract of the paper be made and forwarded to the Secretary at least three weeks before the date of the Association. After a good deal of discussion this was carried.

THE ASSOCIATION VISITS THE ASYLUM.

On invitation of Dr. Bucke, of London Insane Asylum, the members of the Association went out to that institution for luncheon, being conveyed out on a special C.P.R. train. They were taken first to inspect the sewage system. The sewage is used as a fertilizer on the farming land of the institution. The luncheon was thoroughly enjoyable. Numerous toasts were drunk heartily, while the asylum orchestra, under Prof. Sippi, discoursed sweet music.

THURSDAY AFTERNOON.

The Association assembled in Victoria Hall at 3.30.

Dr. McPhederan addressed the Association on the subject, "The more recent methods of diagnosis and treatment of diseases of the stomach." He said that formerly it was thought that the stomach was the principal and only organ of digestion, but now it was known that the whole alimentary tract takes part in the digesting process. He said the function of the stomach was threefold, viz. : 1—To receive food, and to partly change starchy matter and albuminous food into absorbable bodies. 2—To prevent the fermentation of the food. 3—To discharge its contents partly into the blood but chiefly into the duodenum.

For the first three quarters of an hour no free hydrochloric acid was, he said, present in the stomach, as it combined with the albuminates. If present, there was hypersecretion of it, which arrested the digestion of the starches. It reached its maximum in amount in four or five hours. The gastric juice retarded the action of or destroyed more germs, specific and non-specific, than any of the other digestive ferments. The duration of normal digestion, he said, depended on the character and amount of the food, also on the age of the patient. The symptoms of stomach disorders were multiple and various. Until the last decade our knowledge of gastric disorders depended on experiments and symptoms, accidents, etc.

Now we owe much of our knowledge to the stomach tube. This, he said, should be soft. The patient not only readily became accustomed to it, but even often would request its use. An approximate knowledge of the stomach's contents would in most cases be all that was requisite for the physician in active practice. A test breakfast should be given, consisting of a round of toast or a dry roll, with a cup of water or of weak tea or coffee, without sugar or milk. This should be withdrawn from the

stomach after one hour's digestion. The acidity of a normal stomach, he said, should be due to lactic acid for the first thirty or forty minutes, after this time to free hydrochloric acids. These acids were discovered by Uffleemann's and Cunzberg's tests respectively, which the Doctor described. It had been taught that absence of hydrochloric acid indicated carcinoma. This was not so. It might be absent in either conditions, and present even excessively in this. However, it could be said that its persistent presence formed strong evidence in favor of cancer. The tube was useful in discriminating between gastric catarrh and carcinoma. The washing out would be followed by improvement in cases of the first, but not much in the second. Its principal use, however, was in dyspepsia, in determining the acidity of the contents. On this our treatment could be based. The lavage stimulated the gastric gland secretion and stimulated the muscular walls to renewed activity. Proper diet and general treatment would suffice to cure many cases. This treatment was particularly useful in alcoholics, also in infantile digestive disturbances. Constipation was relieved by its use, also the gastric neurosis, reflex vomiting of pregnancy, the patient being fed through the tube. This subject was one of immense importance on account of the immense frequency of disease of the stomach, 4 to 6 of all the ailments medical men were called on to treat being caused by derangements of this organ.

Drs. Ferguson, Wesley Mills, Gardner and Praeger discussed the paper.

The meeting then divided into sections, Dr. I. H. Cameron presiding over the surgical side while Dr. Moorhouse presided over the medical.

SURGICAL SECTION.

Dr. Primrose presented a paper,—subject "A Large Sarcomatous Growth in the Neck, with Secondary Deposit in the Lung." It was found in a boy four years of age, a patient in Victoria Hospital, Toronto, under Dr. Cameron. It extended on the right side of the neck from the median line in front to a point near the vertebral spine, and from the lobule of the ear to the clavicle. Was noticed two years and three months before, corresponding to the region of the right lobe of the thyroid gland. Caused little pain. Was somewhat lobulated, with prominent veins coursing over its surface. Fluctuation distinct. Measurement on tumor side of neck horizontally $13\frac{1}{2}$ in. Left side 6 in. From lobule of ear on right side (over tumor) to outer extremity of the clavicle 7 in., on left side $2\frac{1}{2}$ in. Left pupil twice size of right. Some dysphagia. Child died in July. The tumor was found in the post mortem to possess several processes, but it had not infiltrated or eroded the surrounding tissues,—a point to be considered in the diagnosis. There were secondary deposits in the

lungs. The anatomical relations of the various structure adjacent were much altered. The large vessels on the tumor side were entirely obliterated. Those on the left side were enlarged. The processes spoken of were in the direction of least resistance. The muscular structures in the neighborhood were atrophied.

In the upper part of the tumor there was a predominance of fibrous tissue, and septa of this tissue divided it off into lobules of spongy tissue. A peculiar condition was found in the spinal canal, the chord being surrounded below the dura mater by a mass of tissue resembling in gross appearance the tumor growth, but was not the same. It contained connective tissue corpuscles and nerve cells and fibres. Its nature Dr. Primrose had not made out. The tumor itself was examined microscopically, and proved to be sarcomatous. The beauty of Dr. Primrose's paper was that he had frozen transverse sections through the child, which exemplified in a most splendid way his paper. The sections were much admired by the Association. Photographs of the same were also presented for inspection.

Dr. PRAEGER spoke in high terms of the paper and the sections.

Dr. R. FERGUSON of London then gave a report, and presented a recent successful case of cholecystotomy. The symptoms of gall-stones in this case were for a long time obscure, the pain being referred to the epigastrium, no pruritus, faeces lacking the characteristic color, and the absence of jaundice. Pulse and temperature remained normal. She had many attacks of pain, which were relieved by hot appliances and morphia. These paroxysms did not appear or disappear suddenly. Gastric ulcer, gastritis and intestinal colic were excluded. Gastralgia was probable. Stomachic treatment gave no relief. The ordinary treatment for gall-stones afforded no relief. But finally some of the typical symptoms of gall-stones began to show themselves. Patient was transferred to the hospital with a view to operation. But after lying quietly for two or three weeks, she improved so much that she went home, operation being postponed, but she soon became worse. On one occasion she had felt after a severe paroxysm of pain a dropping of something in the region where the pain existed. Operation was gone on with. Eighty gall-stones removed, the edges of incision of the gall-bladder being sutured to the edges of the wound. A cough retarded the process of healing. Repair did not take place well. Suppuration set in. Parotitis in left gland set in, also localized peritonitis. Attacks of pain returned. Dr. Ferguson then tried to insert a catheter through into the bile duct, which he thought he accomplished. The side of the catheter appeared to grate on some hard substance, but improvement took place, and patient returned

home in ten and one-half weeks after the operation. But in four weeks the symptoms re-appeared—pain very severe. Chloroform had to be administered constantly, as morphia seemed insufficient. She inhaled thirty-six ounces. Another operation was decided on. The incision was extended downwards $1\frac{1}{2}$ inches lower, allowing exploration with the finger in the region of the bladder. A body $2\frac{1}{2}$ inches long, $\frac{1}{8}$ in. thick, was scooped out of the gall bladder. Its structure had not been determined. The opening in gall-bladder was secured by a purse-string suture, and a drainage tube inserted into bladder. Patient made, although very nearly collapsed at the close of this operation, a good recovery. The pain in the second instance the Doctor thought might have been due to the presence of the mucous cast (if such it was), which might have been forced out of the bile ducts into the bladder. The Doctor's paper was valued highly. The patient was present, and the seat of operation exposed for inspection. A small biliary fistula was still to be seen, but in other ways the patient seemed perfectly well.

Dr. CAMERON, Chairman of the section, asked why cholecystectomy might not be done in such cases rather than cholecystotomy.

Dr. PRAEGER had had a case where the pain was referred to the epigastric region. The Doctor then outlined the case. It proved to be much like Dr. Ferguson's, only that the stones were in the duct instead of in the bladder, and adherent to each other. In closing, the edges of the bladder were stitched to the sides of the wound. He was of the opinion that cholecystectomy should be preferred to cholecystotomy.

Dr. MEEK had seen and helped with Dr. Ferguson's case, and agreed with him as to the causation of the recurrence of pain after the first operation. Dr. Meek cited another case in which the peculiarity was the immense dilatation of the bladder, one they had recently operated successfully upon. He was surprised to hear that Dr. Tait had adopted cholecystectomy instead of cholecystotomy.

Dr. PRAEGER told of a similar case he had to that of Dr. Meek: the bladder contained one and a half pints of bile and some forty stones.

Dr. SMITH, of Fingal, then reported on Dr. Meek's last case, which was under his care. Patient was doing well. A point he dwelt on was that the temperature at the time of operating was 105° . In three hours it was normal, and had remained so.

Dr. CAMERON then spoke of the propriety of removing the gall bladder. In cases especially where there was great distension and the presence of a number of stones, that operation was preferable. There would thus be less danger to the peritoneum after the operation: the persistence of a biliary fistula is done away with. The bile, instead of escaping externally, should

take its natural course, and thus carry out its digestive function in the intestines. Dr. Cameron spoke of the administration of very large doses of glycerine, 2 or 3 ounces each hour of the paroxysm, for the relief of cases of gall stones. He supposed it acted by its hydrogogue effects,—dehydrating, and thus relieving the swollen mucous membrane. He had seen satisfactory results from its use.

Dr. FERGUSON said he had tried equal parts of glycerine and succinate of iron (about half an ounce of glycerine) four times a day.

MEDICAL SECTION.

"Some of the Uses of Sulphurous Acid" was the subject of a paper read by Dr. Arnott, of London. He began by saying that he had in his experience profited most by learning new applications of old remedies. Sulphurous acid was an old remedy. Homer spoke of its use in fumigation. The Doctor spoke of its application in typhoid fever. It was particularly useful in that class (for he held typhoid had different causes) of typhoid due to "rapid multiplication of bacteria in the blood." The remedy should be freshly prepared, and administered early in the disease. He would give from $\frac{1}{2}$ dram to a dram every two hours, or even more, if the patient could stand it. With it he had not lost 1 p.c. of his cases, and his patients, he said, were never given alcohol. To his mind it was the remedy in typhoid. In early phthisis it was useful. It did not hurt the stomach. He had almost discarded the use of cod liver oil. It had been noted that consumptives who labored in sulphuric acid works improved in health.

Dr. HODGE presented three cases of Friedreich's ataxia in one family, two sisters and a brother. Father had eczema of legs so badly that he was obliged to use crutches, also had leucoderma of hands. A paternal uncle suffered from hemeralopia. These were the only neurotic points in the family history. The first, M.W., æt. 41, had a history of falling down stairs, having since then a weakness in the legs. Got worse since she was ten years of age. Now patient could not walk without support. Staggers while standing even with eyes open. Left alone, falls forward. Gait like one drunk. Leg muscles suffer only atrophy of disuse. Legs sensible to pain, touch and temperature variation. Has pain now and then in right hip. Plantar reflexes normal; patellar increased. Feet in condition of talipes varus. Marked curvature of spine. Upper extremity normal. Pupils act normal. When she fixes to either side, there is marked horizontal nystagmus. Face not symmetrical,—mouth drawn to left side. Tongue on protrusion turned to right, and exhibits fibrillar twitching. All senses normal. The second, Sarah, æt. 37, has suffered since she was 13, but nothing wrong with the gait till

six years ago, at which time she received a hurt in the knee. Now she cannot walk without a cane. She would fall forward if unsupported. In most respects she resembles her sister. Her speech is slow and not very plain.

The brother, aged 36. Feet began to deform at 15. When eyes were closed he would fall backwards. Gait wide legged, zig-zag and somewhat stamping. Lying down he can do all the ordinary movements of the legs. In prominent symptoms, much like sisters. Right hand is claw-shaped. Atrophy of muscles of hands. Left hand somewhat affected too. Curvature of spine. Suffers with excessive sweating.

Drs. Meyers, Macallum, Mills, Arnott and Moorhouse took part in the discussion, Dr. Hodge replying.

Dr. McKEOUGH then followed by reading a paper on puerperal eclampsia. In all cases the urine should be examined,—more especially in primipara, who make up $\frac{7}{8}$ of the cases. Albuminuria, however, is not always followed by eclampsia. The prophylactic treatment should be directed to diet and the use of eliminatives. Mild diet—milk being best—should be recommended. Salines should be given to keep the bowels free; while for the skin, nothing was so good as the daily hot bath for 20 minutes, the temperature on immersion 99, and gradually raised to 112. Ice might be applied to head, and large quantities of water should be freely given the patient. If after this treatment the albuminuria is still present, labor should be induced. The process the reader of the paper then described. If any nervous symptoms showed themselves, chloroform should be administered. One should always keep in mind in treating such cases three points in the etiology,—heightened vascular and nervous tension, the presence of some poison probably from the kidneys in the system, and the presence of the fetus in utero. If eclampsia comes on in spite of all previous treatment, the steps should be: 1st, sedative; 2nd, eliminative; and 3rd, induction of labor. The Doctor referred to venesection. In certain plethoric cases it might prove useful. But in trying it as a last resort in two of his own cases it did not save them. In 50 cases in Guy's in which it was performed, 30 p.c. died. Immediately after in 34 cases where it was not used, 20½ p.c. died.

THURSDAY EVENING.

The report of the Committee, *re* Interprovincial Registration, was presented by Dr. Praeger, in the absence of Dr. J. E. White, Chairman of the Committee. It proposed that a Dominion Medical Council be formed, "to take general surveillance of the medical curriculum, and of all matters affecting the general public and profession of the whole

Dominion," formed either by representatives (one each) from the members of the various provincial Medical Councils, or elected by the Medical population of Canada, irrespective of provincial lines; or on the "line of the British Medical Council." Its duties should be the equalization of the Medical curriculum to a just and high standard; to secure interprovincial reciprocity; to have the power to withhold or take away a Dominion license from a provincial graduate for just cause; to approve all provincial examination papers before they are presented to candidates. There should only be one examination for the Provincial and Dominion licenses, and an extra fee for the latter. If it followed the British Medical Council in its formation, the B. M. C. regulations should be operative as applicable to the Dominion. All men now on Provincial registers to be entitled to Dominion registration within one year of the formation of the first Dominion Medical Council, on payment of \$10. All practitioners outside of Canada and Great Britain would be allowed a Dominion license upon passing the prescribed examination. All those on the British register would be entitled to registration upon payment of \$25, as soon as Great Britain extended the same privilege to Canada. The Committee further recommended that the Association through a Committee should present these views to the Provincial councils, and by concerted action with them to apply at the next session of legislature for such permissive legislation as would be required to establish the powers and duties of the Dominion Medical Council. If any provincial Council refused to accede to the demands of the general profession for these objects, that this Association should instruct their delegates to go to the Legislature of such Province and secure the required concession.

Dr. PRAEGER moved its reception.

Dr. A. B. MACALLUM thought there were many difficulties in the way of bringing about the result desired for in the report. The formation of a Dominion Council as was recommended in the report would have to conflict with the various Provincial Legislatures which had under their control the subject of medical education. Such a Council would be inert. One of the difficulties was, that the graduates of Universities in Quebec were granted licenses to practice, while this was not the case in Ontario. If such outside Universities were granted such extended privileges, the Ontario, Manitoba, and institutions of the other Provinces would be clamoring for their rights. Then, too, the courses of study in medicine in the various universities were much different. In Quebec, for instance, subjects were taken up which were regarded as foreign to medical education. Some of their universities demand-

ed of the students a knowledge of Catholic history, metaphysics, etc., much to the dissatisfaction of the English minority. Dr. Macallum would strongly support a Dominion Council, but one with powers considerably different from those outlined in the presented report. A British Medical Council would answer our conditions far better than such a Dominion Council as proposed. He suggested that representatives of all the various councils and Universities of the Dominion and Britain form a Council, and that they, after debate, recommend, after proper legislation, that the standard shall be raised in this or that subject of every Province. Then it would be easy to have the desired reciprocity. The report presented was a most ill-digested one.

It was moved by Dr. CAMERON and seconded by Dr. MACALLUM, that the report be tabled. This was carried.

Dr. WESLEY MILLS, of Montreal, then took up the subject,—“Peculiar Forms of Sleep or Allied Conditions.” He gave a report of his observations of the *arclomysmonas* (woodchuck) during a period of five years, and more particularly during its season of hibernation. With the phenomena presented, he compared strikingly similar phenomena in two or three cases in human individuals. Some of the points were the periodicity of the attacks of stupor, abstinence of food and consequent emaciation, great slowing of respiration and circulation, the partial cessation of stupor to attend to urination and defecation, the tendency to increase reflex action. The Professor's account of the lethargic condition in man was listened to with exceeding interest, the cases, some of them being authentic, having come under his own observation. The Professor, as an evolutionist, contended that these tendencies were analogous to those in the lower animals, and inherited, so to speak, from them. Although Dr. Mills takes this advanced view, he says he is inclined less than ever to pooh-pooh what is said regarding trances and other similar popular notions.

Dr. A. B. MACALLUM, of Toronto, while admiring Dr. Mills' able paper very greatly, took some exception to his views. He contended that pathological conditions in the subjects whose cases were cited caused the lethargy; no such change in the brains of the lower animal, so far as he knew, took place. The subject, however, was one of extreme interest in connection with medical psychology,—question of the relationship of periods of lengthened sleep to mental disease. Dr. Mills would be prepared, he said, to believe in the Rip Van Winkle legend.

Dr. CAMERON regretted that Dr. Mills had been obliged to omit the latter part of his paper, which dealt with the real nature of the

hibernating and allied conditions. It would have been interesting to have heard a comparison between such various conditions as sleep, ordinary coma, the somnolent form of status epilepticus, etc. Regarding the pigmentary and fatty changes, Dr. Mills spoke of all which were familiar. Dr. Cameron inclined to think it was a question of pathological chemistry rather than a gross pathological change.

Dr. H. A. MACALLUM gave Dr. Bucke's tide-theory that sleep was influenced by or in the same manner as the tides. The child's sleep corresponded to the two periods of rest between tides. In reply, Dr. Mills said that changes had been found in the brain cells of hibernating animals. He believed the object of the condition was for preservation of life. In winter, when it was difficult to get food, the woodchuck did with little or none. On account of his peculiar condition, inherited, no doubt, from his sluggish ancestors of ages ago, “sleepy Jo” (one of the cases reported) found it agreeable to his constitution and economical to spend that portion of time, when sustenance was difficult to obtain and weather inclement, in the lethargic state. Regarding the Rip Van Winkle story, he (Dr. Mills) thought it was like Shakespeare, a case in which the genius anticipated the science.

Dr. J. C. MEYERS, of Toronto, then read a paper on Multiple Neuritis. He gave a brief history. Family history negative. Had for eleven years a suppurating knee: began from an injury. Always used to work. Two years ago had an attack of paralysis from exposure to cold; recovery in ten weeks. Present illness began in July last. Noticed first, stiffness in right foot, which soon attacked the left, then went to the hand. The stiffness changed to paralysis, legs and forearms becoming involved. Took to bed. No pain or abnormal sensations. Complete paralysis of the flexors of the ankles and extensors of the toes. Posterior tibial muscles weak. All forearm muscles affected, extensors most. Slight wasting of the affected muscles, particularly those of the thenar eminences of the hand. Marked hyperalgesia over the body. Tactile and temperature sense were exaggerated. Knee and elbow jerks lost, also skin reflexes. No paralysis of the ocular muscles. Discs normal. Health in other particulars good. Galvanic current shows A.C.C. is equal to K.C.C. From August 15th patient began to improve, and is continuing to do so. Power gradually returned, muscular nutrition increasing, and ability to walk returning, the walk being that of a “stepper.” Myelitis was suggested as the diagnosis; this Dr. Meyers negatived by the distribution of the paralysis, integrity of the muscles, and absence of bladder and rectum symptoms. He diagnosed it multiple neuritis, with a favorable prognosis.

Treatment: salicylate of soda and warm baths; after a few days, strychnine and other tonics, with massage and electricity, were given. The reader of the paper then gave a minute description of the pathological changes which take place in this disease,—the parenchyma being almost alone affected. The nerves most often affected were the anterior tibial and musculo-spiral. It was caused, it seemed, from a morbid state of the blood: this poison had a special affinity for nerve tissue. Modern pathology had enabled us to see that this was a separate disease from those with which it used often to be confounded, in which the lesions occurred in the central nervous system. Dr. Meyers pointed out the various differences between such diseases and multiple neuritis, both as regards pathology and symptomatology.

"Ophthalmic Memoranda" was the subject of Dr. A. REEVE's paper. He referred to the progress that had been made in ophthalmology since the introduction of such instruments as the ophthalmoscope; also in the treatment of such affections as trachoma, lymphonata, astigmatism, stricture of the lachrymal duct, etc. The speaker outlined the present treatment for such affections, and methods of employing surgical therapeutics where necessary. He discussed at some length the subject of sympathetic ophthalmia.

Dr. OSBORNE, in discussing the paper, spoke of the necessity of treating the nasal catarrh which was found in many cases of lachrymal duct affections. He also spoke of the great value of the ophthalmometer in astigmatism.

Dr. REEVE replied.

Dr. HARRISON, the president-elect, was then voted into the Chair. Votes of thanks were heartily given to the retiring president, the medical profession of London, and the railroads.

Dr. ANGLIN moved that the usual honorarium be given to the Secretary,—Carried.

Mr. J. H. Chapman, of Montreal, had an extensive and beautiful array of all kinds of surgical instruments on the platform, which were much admired between sessions by the members of the Association.

Progress of Surgery.

THE ROLE OF THE POSTERIOR URETHRA IN CHRONIC URETHRITIS.

In a paper read by Dr. Bransford Lewis, of St. Louis, before the June meeting of the American Association of Genito-Urinary Surgeons (*Medical Record*, June 29, 1893), the author presents some very radical and unorthodox

views on the frequency of posterior urethritis and its influence in the production of chronic gonorrhœas.

The various causes commonly accepted as sufficing to explain persistence in gonorrhœa were reviewed, and their potency as such was denied, *seriatim*. Two cases were reported showing that the presence or absence of the gonococcus, alone, could not form a reliable criterion as to prognosis: Case I. (primary) with abundant gonococci—containing discharge, lasted six weeks; while Case II. (secondary), also giving abundant gonococci—containing discharge, lasted only one week. The influence of anatomical abnormalities was restricted to only a small minority of the exceedingly numerous cases of chronic gonorrhœa, and did not explain the great number that occurred. The several varieties of urethritis, such as "granular urethritis," "catarrhal urethritis," "hypertrophic urethritis," etc., were only pathological incidents, not causes, of chronic gonorrhœa; and even on discriminating between these several varieties, the question still obtruded itself: What was it that had produced that particular variety?

Again, urethral therapists, with ardently-advocated new remedies, supposably specifics, had all in turn failed in their endeavors to abolish prolonged claps. So that it must be acknowledged that the various factors to which chronic urethritis was usually attributed, while relatively important in a contributory way, did not cover the ground in actual clinical experience; and something else must be found to bear the onus of being a prolific source of chronic gonorrhœa.

While aware that infection of the posterior urethra was almost universally recognized, by advanced practitioners of the present day, as a complication of gonorrhœa that was difficult to cure when it did occur, that interfered with the usual course of treatment employed, and required special measures for its relief, etc., he did not believe that the full importance of posterior inflammation was generally conceived, that its frequency was even approximately estimated in general, or that its bearing on almost every case of gonorrhœa was understood, recognized or acknowledged.

In Dr. Lewis' opinion, the posterior infection should not be looked upon as a complication, but as a natural feature, occurring with such unfailing regularity, that an observer, watching carefully and critically gonorrhœal cases, must see a great many of them before he would meet with a single one that remained free from the so-called complication throughout the disease. This conclusion, to which clinical investigation had led him, was supported, in recent writings, by the following statistics of authors who had been pursuing a similar study of late years:

Lesser asserted that of fifty-three cases of primary gonorrhœa under his care, the posterior urethra escaped infection in only four cases, making the frequency of posterior urethritis 93.5 per cent. Jadassohn found posterior urethritis in 143 of 163 cases, making 87.7 per cent.; Rona found it in 79.7 per cent of his cases; and Eraud found it in 80 per cent. of all his cases.

In endeavoring to harmonize this undoubted fact of frequency of posterior urethritis with the reason for its frequency, the author disregarded, as inapplicable, explanations usually given. Sexual intercourse, the "forced" injection, the passage of instruments, etc., during an active gonorrhœa, were chiefly complained of by writers on the subject—extremely seldom by the patients themselves. Bearing on this point, the time and mode of onset of the posterior inflammation was of importance. Instead of the inflammation progressing slowly and gradually backwards over the urethral mucous membrane and reaching the posterior urethra in the second or third week, as was commonly taught, it reached the posterior urethra, in most cases, in the first (active) week of the disease. This rather favored the supposition of Horteloup that the mode of infection was through the lymphatics rather than by continuity over the mucous surface.

The author, therefore, felt justified in submitting the following conclusions:

1. The causes usually given for the prolongation of cases of clap (presence or absence of gonococci, stricture of large calibre, the use of particular drugs in treatment, etc.) do not satisfactorily explain them, nor do they furnish reliable means for prognosticating the outcome of a case.

2. A single widely prevalent cause for such prolongation of gonorrhœa has, as yet, not proved its right to recognition as such.

3. Posterior urethritis, by reason of its anatomical seclusion and inaccessibility to ordinarily-prescribed treatment, if frequent, offers the best explanation for such prolongation or repeated recurrence.

4. Scrutinizing clinical investigation shows posterior urethritis to be present in the great majority of cases of prolonged or severe gonorrhœa.

5. Direct, topical treatment to the posterior urethra is, therefore, necessary in the great majority of cases.

6. The causes usually given for producing posterior urethritis are not commonly found to be real factors in the clinic.

7. The mode of onset usually described does not coincide with that discerned in clinical observations.

8. These two latter observations confirm the probability that the posterior urethral infection

is accomplished through the lymphatics, and explain the frequency of such infection.

9. Posterior urethritis is not a complication, but a natural phenomenon of gonorrhœa.

ANAL DILATATION.

The editor of the *Eclectic Medical Journal* is a gentleman of pronounced opinions, as the following editorial from his journal will attest:

We have noticed for some time that "anal stretching" was becoming a feature of the new surgery, and that "anal dilators" were becoming instruments to which men were attaching their names as inventors, and attributing wonderful results as "stimulators of the capillary circulation" and the sympathetic.

But this thing goes by leaps and bounds; it does not walk and feel its way as does ordinary medicine. A recent case of anal dilatation in Cook County Hospital will illustrate:

"An operation was to be performed on a woman, and a number of physicians were invited to witness the surgical skill. The patient was being put under the anæsthetic,—indeed, was put under it too far, and 'let go.' At once all was excitement, and efforts were made in sundry directions toward resuscitation. They seemed of no avail, and the woman was dying or dead. One of the visitors who had just attended his course on 'orificial surgery' with Dr. Pratt was very much interested, and asked: 'Have you heard of "anal dilatation" in such cases?' They had not. 'May I be permitted to take charge?' He was permitted, and rushed forward, inserted both thumbs in her anus, and with herculean strength divulsed the sphincter. She gasped, she breathed, a rosy hue flushed her cheeks and lips; she was saved."

I may not have given the story in the flowery language of our homœopathic exchange, but I have given the facts as reported. If Cook County denies it, then I shall believe that Cook County wants to cover up their want of skill in the use of anæsthetics, or their lapse from virtue in allowing a believer in "orificial" to save a human life.

You can see how it is yourself. If one had a straight ticket for the other world, and suddenly someone should thrust both thumbs in his anus, and rend it, he would come back to see what was the matter. It stands to reason, and does not require an argument, especially if the person should be a woman.

Divulsion of the sphincter is a good thing in some cases, as removal of causes of irritation of the orifices of the body is a good thing. But it does not want to be vaunted too much. As I read it, a line from Shakespeare is brought forcibly to mind: "Methinks this woman doth protest too much."

BREAD AND DYSPEPSIA.

The conclusion that wheat bread is unfit for dyspeptics, sometimes jumped at because ill effects are noticed to follow its use, is erroneous. On the contrary it has been pointed out by Bouchard and others, that farinaceous food is peculiarly adapted to some dyspeptic patients. It is the microbes in the starch, which are capable of producing irritating acid that cause the trouble. To avoid this, Bouchard recommends that only the crust or toasted crumb of the bread be used by dyspeptics, particularly those whose stomachs are dilated. The reason of this is explained by the fact that baking temporarily, though not permanently, arrests the fermentation of dough. When it is again heated by the warmth of the stomach the fermentation is renewed. In cases where the bread is toasted brown through, the fermentation is stopped permanently.—*Food.*

ICHTHYOL IN GONORRHOEA.

Jadasson speaks highly of ichthyol for gonorrhoea in women as well as in men. In 37 cases occurring in females the results of treatment were excellent. He found that in the male, uncomplicated specific urethritis was the form of gonorrhoea most favorably influenced by this treatment, so he employed ichthyol for gonorrhoeal urethritis in women, and as the results were good, he then applied the same substance to the cervix for gonorrhoeal cervical catarrh. It seems quite safe, when used in the early acute stage. Ichthyol can readily be applied to the cervix, and also later on in these cases to the endometrium with an ordinary Playfair's probe, covered with wool, a 10 per cent ointment is sufficient. The probe may also be used for the urethra, a weaker preparation of one to ten per cent is needed. It may be injected, and in some cases the urethra should be packed with gauze dipped in ichthyol and introduced through the urethral speculum.

Progress of Gynaecology.

A SENSIBLE AND TIMELY CAUTION.

We have, on several occasions, given editorial expression to our own decided views as to the impropriety of intra-uterine invasion by inexperienced and unskilled specialists, and have called attention to the irreparable mischief that must inevitably ensue. We know that in such comments we have been supported by the best men in the profession, among whom are many able and careful gynaecologists. We quote, therefore, with pleasure, the sensible views

expressed in a recent article bearing upon this subject, from the pen of one whose practical views are well worthy of general diffusion. He writes as follows :—

After a three years' service in the Gynaecological Department of the Jefferson Hospital, and after witnessing what we have at the operating-table, in connection with the sad experience that attended our work in several instances with the electrode, we consider that the difficulties and uncertainties besetting gynaecological diagnosis are a bar, to a very large extent, to all forms of intra-uterine treatment. If, as pointed out, pathological conditions of such gross character are so difficult of proper recognition, how much more difficult is it, in the vast majority of cases, to diagnosticate a catarrhal, or even a suppurative, salpingitis, where the presence of fluid material in the tube is limited to a few drops of pus or muco-pus, giving rise, in many instances, to but little, if any, distress, yet possessing all the latent properties of intense energy if its smouldering embers are but stirred into activity, as they often have been, by an irritant intra uterine application! Of all the specialties in medicine, none is entitled to a better trained hand and the exercise of a maturer judgment than that of gynaecology. In the present state of our knowledge of pelvic disease, and with the facilities at hand to acquire legitimate diagnostic and operative skill, no man has a right to do anything above the vaginal vault, gynaecologically, especially in our large cities, save when the exigencies of a given case or the circumstances surrounding the same demand it, unless he has first served a well-appointed apprenticeship with some experienced operator. Scores of women are unnecessarily mutilated, and many lives sacrificed, by men of insufficient experience, who have nothing more to guide them in their eagerness to do an abdominal section, or make an intra-uterine application of electricity, than a "pain in the side" or a discharge from the cavity of the uterus.—*Coll. and Clin. Record.*

DANGER OF OVARIAN CYSTS IN PREGNANCY.

Potherat (*France Méd.*, March 25th, 1892) attended in October, 1891, a patient, aged 34, who had been delivered twenty days previously. Two years before, a surgeon had discovered an ovarian cyst, and advised her not to submit to any operation. Labor was natural; but, a few days after delivery, fever, rigors and vomiting set in. A cystic tumor was discovered, and Potherat operated. The cyst was adherent to intestine, omentum, the parietes, and the pelvic peritoneum. The breaking down of adhesions was very difficult. The ovarian fluid was full of blood. The pedicle was twisted.

The peritoneal cavity was washed out and drained. On the third day the temperature rose; this was due to the development of an abscess in the posterior part of the right thigh. The abscess was freely laid open and the patient at once began to recover. She was soon restored to excellent health. For a long time she had been sickly, with a sallow complexion and a rough tongue. This case shows the importance of early ovariectomy, and also indicates that pregnancy and labor exercise a bad influence on an ovarian cyst. In this case there was acute torsion, and in other instances, where torsion had not occurred, acute inflammation of the cyst had been set up in childbed. —*Brit. Med. Journal.*

Progress of Obstetrics.

ANTE AND POST PARTUM DOUCHES.

In a discussion of this subject before the Philadelphia County Medical Society, *Times and Register*, Dr. Joseph Price said:

During the last six years I have kept a record of the number of puerperal deaths occurring in my consulting practice. I have seen over one hundred such cases. I cannot sufficiently emphasize my position in this matter, for I see too many women dying to hesitate to express myself freely. I have been interested in some eight thousand cases of labor, and I have had nearly thirteen hundred lying-in patients at the Preston Retreat, without a death from *any cause*. The practice at the Retreat has been that of the greatest cleanliness possible to obtain, from the admission to the discharge of the patient. I always regard a woman after labor as a wounded patient, and treat her as such. Sometimes the wounds are deep and severe, and without proper antiseptic precautions many of these women would die after childbirth. When I find a woman after labor dying with high temperature, I generally find a severe lesion of the perineum, vagina or cervix.

I agree with what has been said in regard to the importance of the ante-partum and the post-partum douche. I look upon creolin as absolutely worthless, and carbolic acid as quite as useless. I value the ante-partum douche quite as much for the saving of the infant's eyes as for saving the life of the mother. I firmly believe that if every woman delivered in this State in the next ten years had an ante-partum mercurial douche carefully administered, the number of blind asylums would be reduced from five to one. In the thirteen hundred women admitted to the Retreat there were three ophthalmias. One was delivered in the gutter, another in the hallway and the third in the bath-room, all before

a bath or a douche. These were the only three ophthalmias born within the institution. There have not been any other cases in the Retreat for two years. I employ as the solution corrosive sublimate 1 : 2000.

Progress of Therapeutics.

CLASS-ROOM NOTES.

Prof. Hare recommends the following prescription in cases of *Infantile Colic*:—

R. Sodii bromidi, gr. xlvij-xcvj
Chloral, gr. xxiv-gr. xlvij
Syrup. lactucarii, q. s. ad f ʒ iij.

SIG.—Teaspoonful to be given on retiring.
M.

A very common condition in the later stages of *phthisis*, Prof. Wilson says, is ulceration of the larynx, which condition has often been mistaken for syphilitic patches. They can be readily diagnosed correctly by remembering the fact that syphilitic ulcers are almost painless and respond very readily to syphilitic treatment, while the others are very painful and do not respond to treatment.

Prof. Graham is of the opinion that the *Prognosis of Hereditary Syphilis* in children will depend to a great extent on the length of time that elapses between the birth and the appearance of the eruption. The sooner the eruption appears after birth, the better will the prognosis be.

Prof. Keen gives the following formula for *Morton's Fluid*: useful where absorption is required:—

R. Iodinii, gr. x
Potassi iodidi, gr. xxx
Glycerini, f ʒ j M.

SIG.—Use locally.

If a *Saline* is administered on account of its purging properties, Prof. Hare recommends that it be administered in as concentrated a form as possible; for it is due to its being alkaline to a greater degree than the juices in the tissues of the intestines that a saline possesses the power to withdraw the fluid from these tissues.

Prof. Hare advised the following treatment in a case of *Aortic Obstruction*: Ten drops of the tincture of digitalis every eight hours, and ten drops of the tincture of the chloride of iron, and if no good results be obtained from this treatment, then supplement the digitalis by five drops of the tincture of strophanthus every six hours.

Prof. Graham ordered the following as a *Dusting Powder for Syphilitic Eruptions* on a child:—

R. Acid boracic, ʒij
Hydrarg. chlorid. mitis., ʒij
Lycopodii, ʒvj M.

SIG.—Dust on the parts affected night and morning.

Prof. Hare gives the following prescription as useful in the *Sub-acute Stages of Bronchitis* :—

R. Vini ipecac f 3 j
Tinct. scillæ f 3 ij
Syrup tolutan., f 3 v
Aquæ destillat., f 3 j M.

SIG.—Teaspoonful every three hours.

THERAPEUTIC BRIEFS.

—LOCAL ANÆSTHESIA may be readily produced in about a minute by a spray of menthol, p. j.; chloroform, p. x.; ether, p. xv.; and will last from two to six minutes.

—BROMIDISM may be prevented by combining an intestinal antiseptic with each dose of the bromide salt as follows :—

R. Potassii bromidi, gr. xxx
Sodii salicylat, gr. x. M.

—FOR PAIN IN THE EAR from inflammation, Dr. John Dunn (quoted in *La Semaine Médicale*) recommends the following :—

R. Menthol. pulv.,
Camphor. pulv., āā gr. xx
Vaseline liquid, f 3 j. M.

SIG.—Instil a few drops into the ears several times a day.

—FOR URTICARIA OF CHILDREN (*L'Union Méd.*) :—

R. Chloral hydrat.,
Camphoræ pulv.,
Acaciæ pulv., āā 3j.

Triturate until liquified, and add
Cerat. simpl., 5j. M.

SIG.—Apply topically.

—Bromide of strontium is recommended for the relief of VOMITING (*Repert. de Pharm.*), 15 grains, before meals, relieves nausea, and this dose—30 to 45 grains a day—is said to be efficacious even in the obstinate vomiting of pregnancy.

—FOR IRRITABLE COUGH, a writer in the *Practitioner* suggests :—

R. Acidi hydrocyanici diluti, f 3 iss
Morphinæ acetatis, gr. iss
Mucilaginis acaciæ, 3j
Syrupi pruni virginianæ, f 3 iv
Aquam ad 3 vj.

Misce et fiat mistura.

A teaspoonful to be sipped every four or six hours.

—Rossolo (*Annales d'Orthopédie*, in *The Therap. Gazette*) warmly recommends chrysarobin in the form of suppository in the treatment of HEMORRHOIDS, made as follows :—

R. Chrysarobin, gr. j
Ol. theobromæ, gr. xxx
Iodoform, gr. ¼
Extract. belladonnæ, gr. 1/16. M.

—FOR MEMBRANOUS ENTERITIS, Dujardin-Beaumetz (*Jour de Méd.*, in *Med. News*, April 29) suggests :—

R. Salol,
Benzo-naphthol,
Sodii bicarb., āā 3ij. M.
Fiant cachets xxiv.

SIG.—One after each meal.

A quart of a ten or twenty per cent. solution of naphthol in warm water is also injected daily.

For the NIGHT-SWEATS OF PULMONARY TUBERCULOSIS, Dr. Ewart (*La Semaine Méd.* in *Med. News*) suggests :—

R. Quininæ sulphat.,
Zinci sulphat., āā gr. ij
Ext. hyoscyami, gr. j
Ext. nucis vomicæ, gr. ½. M.

Ft. pil. j. S.—Take at bedtime.

For an EMULSION OF COD-LIVER OIL (*The Practitioner*) :—

R. Ol. morrhuæ, ℥ xxx
Glycerini, ℥ x
Liquor. calcis, vel
Mucilag. acaciæ, f 3j. M.

—For the INSOMNIA OF CHILDREN, Simon (*L'Union Méd.*, in *Therap. Gazette*) employs the following injection :—

R. Chloral, gr. ij
Tinct. moschi, gtt xx
Tinct. valerian, gtt. xx
Aquæ destillat., f 3 j. M.

Inject the entire quantity into the rectum, and, if necessity requires it, the dose may be repeated if sleep does not come on in the course of two or three hours.

—Dr. S. Solis-Cohen (*The Phila. Polyclinic*, April 15, 1893) states that in several cases of malarial intoxication of long duration, in which ANÆMIA has been marked, and in which, after cessation of acute symptoms, a course of arsenic has failed to bring about marked improvement, rapid return of corpuscle and hemoglobin to an approximately normal standard has followed the administration of a solution prepared as follows :—

R. Tincture of ferric chloride, f 3ij
Diluted phosphoric acid, f 3 iij
Glycerin, f 3 vj
Solution of hydrogen dioxide, enough to make f 3 iij.

SIG.—Two teaspoonfuls in three ounces of water before meals thrice daily.

This is slightly modified from a formula of B. W. Richardson's. It will be practically stable for the few days during which the three-ounce mixture lasts. It is useful in chlorosis and anæmias generally.

—Dr. Edward J. Bermingham (*N. Y. M. Journal*, Feb. 4th), Surgeon to the New York Throat and Nose Infirmary, describes a very ingenious apparatus which he has devised for controlling the Edison current, so that it can

be used direct for GALVANO-CAUTERY OPERATIONS. The apparatus consists of a rheostat, made of coils of iron wire and a handle. The peculiarity of the handle consists of its having solid conductors, and the circuit is therefore always closed. It is under the control of the operator's thumb at all times during the operation, and the current can be cut off from or allowed to pass to the knife instantaneously and without producing an arc. The apparatus is simple and inexpensive, and, from the detailed description given, any electrician can construct it. Dr. Bermingham has been using it for two years and a half for all his cautery operations.

—TREATMENT OF FOLLICULAR TONSILLITIS.—Dr. J. C. Hoag (*Chicago Med. Recorder*, April) recommends removing the exudate of the tonsils in cases of acute follicular tonsillitis. This he does with a small spoon, a probe wrapped in cotton, dipped in peroxide of hydrogen, and a small pair of forceps. He finds that the removal of the cheesy plugs from the lacunæ and follicles is uniformly followed by a very marked amelioration of all the symptoms of the disease, and believes that in this way the source of the constitutional disturbance is attacked. He uses a gargle of peroxide of hydrogen.

—A one to five per cent. solution of styrone (which is a compound of styrax and balsam of Peru) in alcohol is recommended in CHRONIC INFLAMMATION OF THE MIDDLE EAR (*Archives of Otolaryngology*). Dr. Spalding recommends it as specially useful in perforations of Shrapnell's membrane. He applies it on a small cotton swab after having had the ear thoroughly cleansed by syringing, and from results obtained he thinks that it merits a trial.

—Dr. W. E. Putnam, of Whiting, Ind., writes to *Med. Record*, April 15, as follows: "I wish to make known a plan of treatment in DIPHTHERIA which I have just carried out successfully in the case of my own children, aged two, four and five years respectively. I used a spray of peroxide of hydrogen, full strength, to which I added one part per thousand of corrosive sublimate. I reasoned that if others can give one-half grain of sublimate a day internally, I can use a grain a day in my atomizer, knowing that the child will spit out nine-tenths of it. I also used a little oil stove, a tin tea-kettle, and a piece of hose three feet long. In the kettle I put turpentine and lime water, in the proportion of a tablespoonful to a pint, and then steamed the child, placing the end of the hose six or eight inches from his mouth."

—Prof. W. W. Keen corrects a statement in the *Medical News*, of April 22, in which Dr. Allen Starr mentioned that "craniotomy had apparently been undertaken without regard to age. Keen operated on a patient aged nine-

teen years," etc. He writes that the oldest patient he had ever operated on was six and one-half years of age, and that he had uniformly declined to operate on any child over seven years old. It had always seemed to him unwise to perform such operations on any patient except in early childhood.

—In recent treatment of tinea tonsurans, LOSOPHAN, a new and very active mycotic, has been giving remarkably good results. Losophan is a triiodocresol, very rich in iodine (about 80 per cent.) with which, on application to dermatic lesions, it slowly parts, thus avoiding toxic effects, while making the pathological field untenable for living organisms. For these reasons, losophan is indicated in all cutaneous conditions due to the development of the try-cophyton fungus, in mycosis, pityriasis, sycosis prurigo, pediculosis, and in all of the large groups of skin diseases due to the presence of filamentous fungi or microspores. The clinical reports advise the use of losophan in one to two per cent. ointments with lanolin or vaselin. Where a wash is needed, a solution should be made of one or two parts of losophan in a mixture of 25 parts of water with 75 parts of alcohol. The mixture keeps well. Losophan has already been tested in the treatment of phimosis and chancre. The best results were gained from a one per cent. powder, dusted over the lesions.

—Shoemaker (*Materia Medica and Therapeutics*) recommends PAPAIN in DYSPEPSIA as follows:—

R. Papain, ʒ ss
Liquor. ammonii acetatis, fʒ ij
Creasoti, ʒ v
Glycerini, fʒ ij.

M. SIG.—Two teaspoonfuls an hour or two after taking food.

In fissures and ulcers of the tongue, papain has been employed thus:—

R. Papain, ʒ j
Pulv. sodii bicarbonatis, ʒ iij
Aquæ menth. pip., fʒ iv.

M. SIG.—Paint frequently over the face.

Papain has also been used externally in the treatment of the chronic scaly form of eczema with advantage, as follows:—

R. Papain, ʒ j
Pulv. sodii biberatis, ʒ ss
Aquæ hamamelidis dest., fʒ j.

M. Apply well over the scaly surface.

HEALTH COMMANDMENTS.

1. Thou shalt have no other food than at meal time.

2. Thou shalt not make unto thee any pies or put into the pastry the likeness of anything that is in the heavens above or in the earth below. Thou shalt not fail to chew it or digest it, for the dyspepsia shall be visited upon the children

to the third generation of them that eat pie, and long life and vigor upon those that live prudently and keep the laws of health.

3. Remember thy bread to bake well; for he will not be kept sound that eateth his bread as dough.

4. Thou shalt not indulge sorrow or borrow anxiety in vain.

5. Six days shalt thou wash and keep thyself clean, and the seventh day thou shalt take a great bath, thou and thy son, thy daughter and thy maid servant, and the stranger that is within thy gates. For in six days man sweats and gathers filth and bacteria enough for disease; whereupon the Lord has blessed the bath-tub and hallowed it.

6. Remember thy sitting-room and bed chamber, to keep them well ventilated, and thy days may be long in the land.

7. Thou shalt not eat hot biscuit.

8. Thou shalt not eat thy meat fried.

9. Thou shalt not swallow thy food unchewed, or highly spiced, or just before hard work or just after it.

10. Thou shalt not keep late hours in thy neighbor's house nor with thy neighbor's wife, nor man servant, nor his maid servant, nor his cards, nor his glass, nor with anything that is thy neighbor's.—*Wed. Brief.*

THE CLINICAL APPLICATION OF INGLUVIN.

INGLUVIN is the name given to a preparation made from the gizzard of the domestic fowl. It is a yellowish, gray powder of a faint odor, and almost devoid of taste. It is insoluble in water. Ingluvin is put up by its manufacturers (Messrs. William R. Warner & Co., of Philadelphia) in 5 grain tablets. Ingluvin is compatible with alkalis. Its virtues reside in a peculiar bitter principle which enters into its composition. It is prescribed in the same doses and combinations as pepsin. Ingluvin was introduced to the notice of the medical profession about 18 years ago. It is of special benefit in the relief of sick stomach. This substance may be given with success when vomiting depends upon organic affection of the stomach, as in acute and chronic gastric catarrh and in gastric ulcer. Nausea, due to disease of other abdominal or pelvic viscera, as the liver, kidneys, uterus and ovaries, is likewise relieved by the administration of this remedy. It allays the gastric irritability which accompanies tabes-mesenterica and marasmus. Vomiting produced by over-indulgence in liquor has been subdued by its powers. It has been found of advantage in cases of sea-sickness and in the relief of the gastric irritability of bottle-fed babes. Its peculiar province, however, is alleviation of the vomiting of pregnancy,

in which it approaches the character of a specific. As everyone knows, the difficulty is frequently very intractable, and one approved remedy after another may be used without avail. To those who have witnessed repeated failures of medication, Ingluvin can be recommended as one of the most efficient remedies which we possess for the relief of this distressing symptom. Ingluvin is likewise beneficial in dyspepsia, when produced by functional inactivity. It is able to promptly check the diarrhoea which is caused by indigestion. By reason of its influence upon the stomach and bowels, Ingluvin is capable of marked service in cases of cholera infantum and cholera morbus. From the preceding account it will be seen that Ingluvin possesses an exceedingly important sphere of usefulness.

Ten grains I found generally a sufficient dose. In some instances 20 grains were required, while in the milder forms of indigestion a 5 grain tablet, after each meal, accomplished the desired purpose. To infants I gave the remedy in doses of 1 or 2 grains.

A series of cases occurring during the past few years in which Ingluvin was administered with benefit has been selected as affording a typical example of the efficacy of Ingluvin. The total number amounted to 49, and a brief history is given of each case. They were classified as follows:—4 cases of cholera morbus; 8 of infantile diarrhoea; 9 of diarrhoea in the adult; 2 of dysenteric diarrhoea; 1 of acute indigestion; 3 of dyspepsia; 2 of dyspepsia with reflex symptoms; 1 of dyspepsia from uterine disease; 2 of flatulent dyspepsia; 1 of nervous dyspepsia; 2 of gastralgia; 2 of colic; 4 of gastric and gastro-intestinal catarrh; 1 of gastric ulcer; 1 of vomiting caused by alcoholism; 6 of vomiting of pregnancy.—*Abstract of a paper by John V. Shoemaker, A.M., M.D., in the Medical Bulletin for June, 1893.*

APERIENT PILL OF SUMBUL: AN EFFICIENT COMBINATION.

SUMBUL, or musk-root, is an excellent antispasmodic and nervous tonic. Its action resembles that of musk and valerian. In small doses it stimulates appetite and improves digestion. It allays irregular nervous action, and is beneficial in depressed or excitable condition of the nervous system. Sumbul may be very advantageously employed in the treatment of hysteria, neurasthenia, neuralgia, functional irregularity of the heart, restlessness, the insomnia of chronic alcoholism, and nervous dyspepsia. The extract is given in the dose of $\frac{1}{4}$ to 1 grain. It is essential that it be made from a pure specimen. As most of these disorders occur in neurotic individuals—especially women—with impaired nutrition, a morbidly

sensitive organization, dyspeptic difficulties, and sluggish movement of the bowels, I have advantageously, in many instances, associated it with nerve and laxative remedies. The following combination which I have devised is now put up on a large scale by the well-known manufacturing pharmacutists, Messrs. William R. Warner & Co. Each pill contains :

R Ext. Sumbul.....gr. i.
Asafoetida gr. i.
Ext. Cascar. Sagrad.g. ss.
Aloin.....gr. 1-10
Ext. Nucis Vom.....gr. ⅓.
Gingerine.....gr. ¼.

℞ The dose is 1 or 2 pills.

From a long list of cases in which the above pill proved of value, a few examples are selected :

A light complexioned, florid young woman became subject to spasms of hysterical chorea. There were twitching and jerking of the muscles of the forearm and face. Two pills were administered thrice daily with excellent results. The paroxysms gradually became less frequent, and at length ceased.

A woman was subject to aching pains in the loins, radiating to the pelvis and groin. Attacks of intercostal neuralgia also occurred ; she was weak, and often had palpitation of the heart. The patient made a complete recovery.

The same treatment was of marked benefit in the case of a woman who, consecutive to her first confinement, had suffered for nearly a year from palpitation, dyspepsia, constipation, mastodynia, headache and giddiness. The action of the heart was rapid and irritable, but there was no organic disease.

A lady, about five week pregnant, suffered from an almost constant headache, and could not sleep well ; was nervous, depressed, weak, dyspeptic and constipated. The pills corrected the state of the digestive apparatus, banished the pains and nervousness, and the patient progressed, without special difficulty, to the end of her term.—*Abstract of a paper by John V. Shoemaker, A.M., M.D., in the Medical Bulletin for May, 1893.*

PERSONAL.

A DISTINGUISHED CANADIAN.

Dr. Jean Lukin Leprohon, A.M., M.D., C.M., of Montreal, celebrated his semi-centennial May 26th. last, as a graduate in medicine and surgery of the Medical Faculty of McGill College, Montreal.

The subject of this sketch was born April 7th, 1822, at Chambly, Province of Quebec. He received a thorough education, finishing his classical study at Nicolet College, P. Q. He

then entered on the study of medicine at McGill College, graduating May 26, 1843. He then visited Europe, for further study and travel, returning to Canada in 1845, when he commenced practice.

Of the graduating class of that year but two are living—both distinguished French Canadians—Dr. Leprohon and the Hon. Charles Boucher de Boucherville ; the latter never practised, but entered politics, and has attained distinction.

Dr. Leprohon's trend was essentially scientific and literary. He founded *La Lancette Canadienne*. In 1870, he was appointed Professor of Hygiene in the Medical Faculty of Bishop's College, Montreal. Has been a justice of the Peace ; Surgeon of Militia. Is one of the founders of the Women's Hospital, Montreal, and a Consulting Physician to the Montreal Dispensary. In September, 1890, the Lieutenant Governor of the Province of Quebec appointed him a member of the Roman Catholic Council of Public Instruction for the Province of Quebec.

Dr. Leprohon, for twenty-two years past, has been a vice-consul of Spain, when the vice-consulate in Montreal was raised to the dignity of a consulate general, the then Consul General there (now of this city), Senor Don Arturo Baldesano Topete, paid Dr. Leprohon the compliment of confirming his rank—an exception to the rule, as in Spain's diplomatic service, vice-consuls are not attached to consulates general. For his care and protection of Spanish interest he was made a chevalier, and received the Decoration of the Order of Charles the Third of Spain.

In 1851, Dr. Leprohon was married to Miss R. E. Mullins, a native of Montreal. At the early age of fourteen she evinced a marked inclination for writing and literary pursuits. Her early promise was confirmed. She became an accomplished and talented authoress, whose graceful writings over the initials R. E. M. are historic in Canada.

Dr. Leprohon is in full health and active practice. To have known him is a lasting pleasure, as he is characterized by that gentleness and urbanity that invariably attracts and makes many lasting friendships.—*N. Y. Med. Record.*

SNUFF FOR RECENT CORYZA.

The *Practitioner* gives the following :

R Morphine hydrochloratis grs. ij.
Pulveris acacia, ʒij.
Bismuth subnitrat, ʒvj.
Misce et fiat pulvis.

Not more than a quarter of this quantity to be used in the twenty-four hours.

PAMPHLETS RECEIVED.

REPORT FOR THE YEAR 1892-93, presented by the Board of Managers of the Observatory of Yale University to the President and Fellows. OBSERVATORY OF YALE UNIVERSITY, BOARD OF MANAGERS:—Rev. Timothy Dwight, D.D., LL.D., President; Professor Hubert A. Newton, LL.D., Secretary; William W. Farnam, M.A., Thomas G. Bennett, Ph.B., Professor Charles S. Hastings, Ph.D. OFFICERS—Robert Brown, M.A., Secretary; William L. Elkin, Ph.D., Astronomer in charge of the Helio-meter; Frederick L. Chase, Ph.D., Assistant Astronomer.

ANNUAL ANNOUNCEMENT OF TRINITY MEDICAL COLLEGE, TORONTO. Established 1850, Incorporated by special act of Parliament In affiliation with Trinity University, the University of Toronto, Queen's University, and the University of Manitoba; and specially recognized by the Royal College of Surgeons of England; the Royal College of Physicians of London; the Royal Colleges of Physicians and Surgeons of Edinburgh; the Faculty Physicians and Surgeons of Glasgow; the King's and Queen's College of Physicians of Ireland; and by the Conjoint Examining Boards of London and Edinburgh. Session 1893-4.

THE ALIENIST AND NEUROLOGIST FOR JULY, 1893, CONTAINS: "Morbid Jealousy," by Dmitry Stefanowski, Jaroslawl, Russia; "The Sensory Symptoms in Three Cases of Syphilitic Spinal Cord Disease," by Frank R. Fry, A.M., M.D., St. Louis; "Contribution to the Study of Transitory Mania," by Salemi Pace and Miraglia, Italy; "Insanity in Children," by Harriet C. B. Alexander, A.B., M.D., Chicago; "Recent Discoveries in the Nervous System," by Frank Baker, M.D., Ph.D., Washington; "Psychology of Queen Christina of Sweden," by Dr. F. DeSarlo; "Medico-Legal and Psychological Aspect of the Trial of Josephine Mallison Smith," by Edward C. Mann, M.D., New York. Besides the usual Selections, Editorials, Hospital Notes, Reviews, etc. C. H. Hughes, M.D., Editor, 421-22-23. Commercial Bldg, St. Louis. Subscription, \$5.00 per Annum; Single Copies, \$1.50.

EXTRACTION OF STEEL FROM THE INTERIOR OF THE EYE WITH THE ELECTRO-MAGNET. By Alvin A. Hubbell, M.D., Buffalo, N.Y., Professor of Diseases of the Eye and Ear in the Medical Department of Niagara University; Surgeon to the Charity Eye, Ear and Throat Hospital; Eye and Ear Surgeon to the Buffalo Hospital of the Sisters of Charity, etc. Reprinted from Transactions of the New York State Medical Association. 1892.

ANNUAIRE DE L'ÉCOLE DE MÉDECINE ET DE CHIRURGIE DE MONTRÉAL. Faculté de Médecine de l'Université Laval à Montréal. 51^{ème} année, 1893-94. Montreal, Typ. Gebhardt-Berthiaume, 30 Rue St-Gabriel, 1893.

ANNUAL ANNOUNCEMENT OF THE HALIFAX MEDICAL COLLEGE. Established 1867. Halifax, Nova Scotia. Twenty-fifth session, 1893-94. Halifax, N.S. Nova Scotia Printing Company, 1893.

UNIVERSITY OF BISHOP'S COLLEGE. 23rd Annual Announcement of the Faculty of Medicine, Montreal. Session 1893-1894. The Geo. Bishop Engraving & Printing Company, Montreal.

SIX MONTHS' MEDICAL EVIDENCE IN THE CORONER'S COURT OF MONTREAL. By Wyatt Johnston, M.D., Montreal, and George Villeneuve, M.D., Montreal (reprinted from the Montreal Medical Journal, August, 1893).

DAY NURSERY, 174 Mountain Street. Annual Report, March, 1893.

AN EDUCATIONAL NEED. (Reprinted from the Medical and Surgical Reporter, October 29, 1892.) By Joseph Price, M.D., Philadelphia.

WARNER & CO'S EXHIBIT AT THE WORLD'S COLUMBIAN FAIR.

In the Manufacturers and Liberal Arts Building is a department devoted to Pharmaceutical products, in the north-west corner of the gallery. This is a prominent position, because the spectator can look upon the exhibits below in a comprehensive way that clearly illustrates the magnitude of this great building of 44 acres of floor space. The exhibit of Wm. R. Warner & Co. is located in this department, Section D 101, at the junction of two avenues. It comprises 400 square feet, and consists of a pyramid 18 feet high with steps forming shelves, trimmed with gilt moulding and surmounted by a statue of Mercury. There is a 4 foot space on either side with seats for visitors, and a door leading to the interior. The stand is simple and conspicuous, without any attempt at a cabinetmaker's display or of beautifully cut bottles. This collection comprises sugar-coated and gelatin-coated pills, flat, oval, pink, white, blue and yellow. Compressed Tablets, Fluid Extracts, Effervescing Salts, including Bromo Soda highly extolled in sea-sickness, insomnia and migraine.

The firm of Wm. R. Warner & Co. (founded in 1856) occupies a most prominent position in their particular line. F. Newbery & Sons, 1 and 3 King Edward Street, are their agents in London. Wm. R. Warner & Co. have branch stores at 197 Randolph Street, Chicago, and 18 Liberty Street, New York.

The Canada Medical Record.

VOL. XXII.

MONTREAL, NOVEMBER, 1893.

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Original Communications.

IMPROVED APPARATUS FOR POTT'S DISEASE OF THE SPINE.*

By HENRY LING TAYLOR, M.D.,
NEW YORK.

The indications for treatment in Pott's disease are to relieve the carious vertebræ from pressure and shock with a minimum of confinement and a maximum of comfort. There are no more powerful stimuli to general and local nutrition in these cases than the relief from mechanical and nervous strain, and the access to fresh air made possible by the use of an efficient spinal splint. This should be in effect an artificial and temporary backbone, giving firm support and protection at the point of dis-

ease, and receiving, partially at least, the strains that would otherwise fall upon the diseased vertebral bodies, and assist in their disintegration.

Recumbency for short periods and abstinence from standing and walking for longer periods are necessary during the acuter stages, but the prime indication from the start is for definite spinal support, for which no period of recumbency alone, however long or strict, can be successfully substituted.

It is now over thirty years since Dr. C. Fayette Taylor described* the early diagnostic signs of Pott's disease, and showed the indication for treatment by antero-posterior support and protection, that is, by leverage fixation. His later improvements in the apparatus designed to meet this indication are shown in this paper.

* Exhibited to the Surgical Section of the Pan American Medical Congress Washington, September 6, 1893.

* The mechanical treatment of angular curvature, or Pott's disease of the spine, New York State Medical Society, February, 1863.

Much ingenuity has been wasted in the endeavor to apply a continuous extending force to the spine, in an apparatus to be worn on the person. As this appears to be a practically insoluble problem, it is fortunate that a vertically extending force is not needed. Antero-posterior leverage alone is used, because by that means pressure can be most directly and perfectly transferred from the diseased vertebral bodies in front to the sound arches behind.

How then about the plaster of Paris jacket? Bradford and Lovett in their excellent work on Orthopedic Surgery give the following answer, pp. 60, 61 and 71:

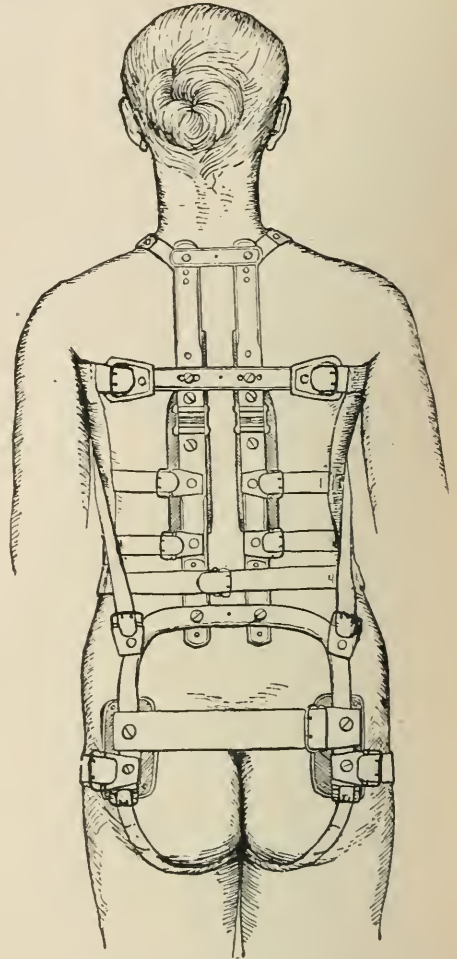
"The undoubted beneficial effect of plaster jackets is due, not to the separation of the affected vertebræ, but to a fixation support in an improved position. In short the plaster jackets afford an excellent antero-posterior support." "Unfortunately, however, the plaster jacket does not of itself, by its hold upon the thorax, maintain a continued extension, but the jacket and thorax so adapt themselves to each other that active suspension ceases. The jacket, however, does act as an antero-posterior support, until it becomes loose and inefficient." We prefer, as do the authors of the foregoing sentences in most cases, if I understand their practice, a properly adapted steel leverage apparatus to jackets of any make or material, on account of its greater precision, adjustability and cleanliness; but it should not be overlooked that as regards results the workman is more important than his tool, and that better results will be obtained with a jacket in skillful hands than with the most perfect apparatus carelessly or unintelligently used.

The improved spinal apparatus is shown in the figures.

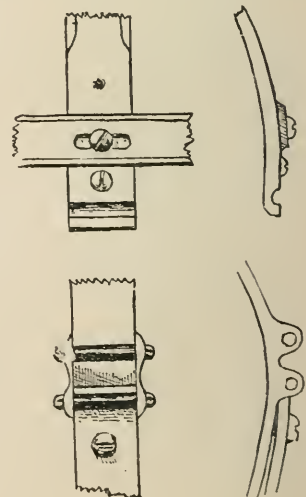
It differs from the apparatus shown to the New York State Medical Society in 1863 in the following points:

1. The vertical parallel bars have been lengthened, and end in hooked pieces,

passing well over the shoulders near the neck.



2. The hinges differ somewhat in construction

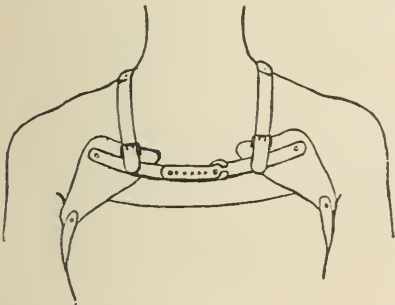


and are screwed to the bars, being retained for purposes of adaptation and adjustment only.

3. The horizontal hip-band is discarded, and is replaced by a rigid steel bar or vertical hip-band having the shape of an inverted U; to the upper horizontal part of this band the lower ends of the vertical bars are firmly attached. The ends of the \cap -shaped band are protected by hard-rubber plates, and rest in the post trochanteric sulcus on either side, and together with the hooked pieces at the base of the neck, fix the apparatus laterally, and assist in vertical and antero-posterior fixation.

4. Hard rubber pads are used instead of the soft pads formerly employed, to transmit the leverage of the apparatus to the region of the spine which it is desired to protect.

5. For counter pressure at the upper part of the chest, instead of the straps encircling the arms formerly used, a "chest piece"

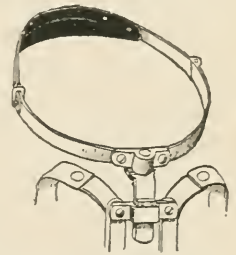


is employed, consisting of two triangular hard-rubber pads, fitted below the clavicles and resting upon the pectoral muscles at the sides of the chest; these pads are joined by a steel bar curved forward to escape the chest, and so contrived that the distance between the plates may be increased or diminished at will. The chest-piece is buckled to straps coming from the hooked shoulder-pieces above, and below it is strapped to buckles at the angles of the \cap hip band on either side, leaving the arms and axillae free.

6. The apron which holds the whole apparatus forward reaches to the posterior border of the axilla on either side, and from the trochanter to the arm laterally, and is secured by straps and buckles to the apparatus.

7. Perineal straps may pass from the lower border of the apron in front, under the thighs, to the ends of the vertical hip-band to aid in fixing the apparatus.

It is to be understood that appropriate modifications of the form of the apparatus are made to correspond with the indications presented by disease in the different regions of the spine, and by the character and amount of the deformity. Most cases above the ninth dorsal will require, in addition, Dr. Taylor's circular pivoted head-support or chin rest, which is easily fitted to this apparatus.



The treatment of this affection, while remarkably satisfactory in the main, would be less tedious, if the nature and serious character of the disease were earlier recognized, and proper management inaugurated without delay. The first months of the affection often pass entirely unnoticed, owing to the absence of pain, and if, later, symmetrical pains at the sides, over the abdomen or down the legs appear, they are frequently attributed to digestive or other troubles. The short, rapid breathing caused by disease in the upper dorsal region may lead to the suspicion of pulmonary trouble, as in a case which came after having been treated two years for asthma. The breathing became natural after proper support was applied, and the disease was entirely cured with but slight deformity. In another case of disease in the lower dorsal region, poor nutrition and pains were attributed to indigestion, and valuable time was lost in the endeavor to correct the digestive disturb-

ance, which together with severe pains in the legs permanently disappeared soon after the spine was properly supported, with speedy and marked improvement in the patient's health. An early diagnosis can often be made before the appearance of pain or deformity, from spinal stiffness, shown in the attitude and movements, the tendency to lean on chairs and tables or upon the mother's lap for support, the careful shuffling gait, failing health and nocturnal restlessness. At this stage the happiest results follow thorough treatment, for half-way measures taken with the idea that the trouble will disappear in a few weeks are of no avail, even in the earliest stages. The symptoms will temporarily subside, as indeed they frequently do for a time without treatment, only to reappear later with increased intensity, unless the spine is efficiently and persistently supported.

It should never be forgotten in the treatment of these cases that an apparatus is intended to be an aid in the general and local hygiene of the patient, who should be under constant supervision and regulation, and such changes made in the mechanical appliance and other elements of management as the progress of the case may demand.

SOME POINTS IN THE SURGICAL TREATMENT OF APPENDICITIS.

A paper read in the Section on General Surgery of the Pan-American Medical Congress held at Washington, D.C., September, 1893, by AUGUSTUS P. CLARKE, A.M., M.D., of Cambridge, Mass., U.S.A.

Recent experiences of surgeons as well as of the general practitioner have most materially changed the teachings of the earlier views respecting the treatment of appendicitis. In those cases in which the inflammation of the appendix is of a minor degree, it may be overcome by an expect-

tant method. Undoubtedly the larger proportion of the cases involving the additamentum coli is of this lesser grade. Such cases often arise from the presence of bacteria or bacilli, which have gained admission into the tissues in immediate connection with the intestinal tract. The symptoms occurring may be characterized by pain or tenderness, by moderate distension, marked constipation, and by disturbance of the constitution generally. Under favorable circumstances, or by rest and by the application of heat and by the administration of gentle laxatives the symptoms may subside, without exciting any grave apprehensions on the part of the patient or on the part of those who are in attendance. After intervals more or less remote there is liable to occur, from various causes, a recrudescence of the inflammation. Not unfrequently after the lapse of some few days the disease may take on retrograde processes; in other instances, it may become so intensified as to demand prompt surgical interference for the patient's recovery. From a careful study of the histories of cases coming under my observation during a number of years past, and also from learning in many instances the final results, I feel that it is not unsafe to say that in every case in which there is reason to believe that the vermiform appendix is involved, however mild or transient the symptoms may at first appear, the surgeon or medical attendant should be on careful watch for sudden surprises or for untoward results. There is great probability in almost any event that the appendix during an attack of inflammation will become adherent to other parts in the immediate vicinity. In a case of laparotomy to which I was called for the removal of diseased uterine appendages, I found that the vermiform appendix had become adherent to the tube and to the ovary of the right side. The appendix caeci was thickened and also indurated as the result of inflam-

matory processes of considerable duration. In some instances the first intimation the surgeon may have of the case will be the formation of a localized abscess ; this may occur in or near the McBarney point, between the umbilicus and the anterior superior spinous process of the ilium, or about five centimetres from that point on the ilium. The temperature in such a case is not usually very high ; it is often not more than 100° to $102\frac{1}{2}^{\circ}$. The pulse may become soft and compressible, and occasionally much more frequent than the temperature would indicate. The vomitus is of a dark or grumous substance, at times it is of a light greenish color. When the symptoms become urgent, surgical measures should immediately be instituted for relief. In many cases, if not in the most, the incision should be made over the point of greatest tenderness. This point, as before intimated, is midway between the umbilicus and the superior spinous process of the ilium, and is usually in the right linea semilunaris. Such an incision will afford an opportunity for free drainage and for flushing the parts with warm carbolized water, or with water of the temperature of 115° to 120° , containing boracic acid or other agents that can safely be introduced into the abscess cavity. A liberal incision when timely made over the tender part has always yielded in the cases occurring in my practice an immediate and permanent result. In all cases after the incision has been made the parts should be thoroughly explored. If the appendix is within easy reach, it should be brought forward and then sewed off by means of sutures of aseptic kangaroo tendon. If, however, the appendix is bound down by firm adhesions, or, if it cannot be found without much difficulty, or without doing excessive violence to the cæcum or to other structures, it is far better to let it remain, for its presence when left will not seriously interfere with the patient's recovery. In a case to which I was called

some months since, the patient, who was aged twenty years, had been suffering nine days. I made a free incision over the tenderest point ; the operation was followed with a profuse discharge of purulent exudation. Careful search at the time was made, but the appendix could not be found. The patient, however, died next day. Extensive dissection at the autopsy revealed the fact that the appendix was drawn upward behind the cæcum, and was firmly adherent to the intestine. It required much patience to isolate and to identify it as the part for which we were in search. No portion of the intestine nor other part was found gangrenous. It is highly probable that, had the patient consented in the early stage of the attack to the operative measures, he could have been saved.

In another case to which I was called, the patient, a girl aged fourteen years, had been ill from the local symptoms for four days ; there had been much distension of the abdomen. The point of greatest tenderness was lower down than usual, but the symptoms so strongly pointed to the existence of appendicitis that a resort to operative measures was advised. An incision was made eight centimetres in length over the point of greatest tenderness, there was considerable discharge of purulent and bloody exudation. The appendix was unusually long and was bifurcated, and at its junction with the cæcum it was larger than normal. The excision of the appendix was effected without much trouble ; it was sewed off as in the other cases by means of the cordwainer's stitch, in which kangaroo tendon was employed. The patient made a speedy and uninterrupted recovery.

In another case to which I was called, that of Miss G., aged thirteen years, the symptoms had been in progress upward of four weeks. The attending physician had early diagnosticated the case as one of appendicitis, and after consultation with

another practitioner had advised a resort to surgical measures. The symptoms, however, soon became so much easier, that the operation was deferred. After the lapse of some days there was a sudden return of the graver symptoms. At this time I was called to see the case. The parents now declined the proposition for any operative interference unless they could be positively assured of ultimate success. Nothing then remained to be done but the adoption of an expectant method. For some days the patient was nourished solely by enemata of beef juice, brandy and beef peptonoids. After that the patient was able to take by the mouth small quantities of malted milk and beef essence. Morphia and other sedatives in small quantities frequently repeated were employed. Under this régime the pain was kept under control, the vomiting almost entirely ceased, the abdominal distension markedly lessened, though there was probably suppuration going on at the McBurney point. The father still refused a resort to operative interference. Though the patient was so much relieved, the temperature was at times somewhat above the normal. On the thirteenth day from the adoption of the expectant method the patient experienced an unfavorable return of the symptoms. She died from sudden collapse on the following day, which was the forty-second from the apparent onset of the disease. In the treatment of this case the patient had the opportunity to try the benefit of the expectant method carried out from the first in the most approved manner. Had an operation been undertaken in the early stage of the inflammation the patient would undoubtedly have recovered.

At no time after I was called did it seem that an operation could have offered much chance for relief, owing to the excessive emaciation and to the other unfavorable phases which the disease had assumed.

If consent had been obtained, I should

nevertheless have given the patient the benefit of an exploratory incision. When an operation in the early stage of the inflammation is undertaken, there will be but little difficulty experienced in the removal of the appendix; of course, after adhesions are formed the danger is increased. In all cases the wound should be kept in an aseptic condition. If an abscess has formed, the cavity should be irrigated or flushed with a warm medicated solution. When the appendix is not easily reached, or is bound down behind the cæcum, the safer method, as before stated, will be to let it remain, and not to make any extended search, or dissection, especially after suppuration has taken place. When the mesentery or other structures have been sufficiently detached, the appendix should not be tied but should be clamped, and then should be sewed off by means of carbolyzed animal sutures. As soon as all bleeding points have been controlled, the appendix should be incised about two centimetres from the cæcal tissue. In order to prevent adhesions of the stump or base of the pedicle to other parts, the peritoneal tissue in immediate vicinity of the marging of the incision should be closely approximated by a subperitoneal or by a Lembert suture. The smaller sized kangaroo tendon rendered aseptic should preferably be the material for such use. A thorough closure of the peritoneal surface of the wound thus effected will not only obviate the occurrence of agglutination of the parts, but will also help to prevent the escape into the peritoneum of septic matter that may gravitate toward this point, and thus to preclude the occurrence of a fistulous tract. The entire wound should as far as possible be kept in an aseptic condition. Aristol and iodoform will be found to be excellent adjuvants in accomplishing this result. The danger of the subsequent occurrence of hernia may be overcome by paying

careful attention to the closure of the severed parts that have been divided in the operation ; the peritoneum, the muscular tissue, the fascia and the external integument should each be brought together separately.

Carbolized animal sutures should be used for this purpose. Entire closure of the wound by the first intension can be effected only in those cases in which the operation has been undertaken in the early stage of the attack. After the formation of an abscess, complete union at first cannot be expected to result, because some method for maintaining drainage for a while will have to be employed. Some operators recommend that, after the appendix has been incised, the stump should be disinfected with a small pointed cautery. In cases in which the appendix has become gangrenous, or in which there has been sloughing or marked septic processes going on, such a method of procedure may do no harm ; but in those cases in which it is desirable to achieve immediate union of the tissues, cauterization may cause further sloughing and exudation that will delay cicatrization. In most cases, disinfection with 1 to 1000 or to 2000 mercuric bichloride solution and the liberal use of aristol and iodoform will be more conducive to this end, and be a far safer practice to adopt. The different steps of the operation are much complicated when there is present an unusual abdominal distension ; so also it will be in cases in which there is excessive or marked obesity. In one case to which I was called, though the distension was not uncommon, expulsion of the intestines began as soon as a moderate incision was made ; the employment of the Trendelenburg posture, however, overcame the complication, and enabled me to complete the operation without further inconvenience. The advantage of Trendelenburg's position in all cases of abdominal section for intestinal affections cannot be over-

estimated. In those cases in which some means for drainage becomes necessary, every detail in the treatment should receive the utmost attention, for if there should occur any hindrance to a free discharge of the exudation, a risk of a dangerous sepsis to the or anism will be incurred. In every such case of abdominal section when a drainage tube has been employed, the possibility of the occurrence of hernia should not be overlooked. In all cases, whether the drainage tube has been required or not, a firm binder or a thorough bandaging should be employed ; the patient for some weeks should be kept for the most part in the horizontal position. As already intimated, an abdominal section with the removal of the appendix, in the early stages of the inflammation, is most likely to be followed with favorable results. In the initial stage of many of the milder cases the medical attendant often hesitates, or shrinks from assuming the responsibility of undertaking operative measures ; he rather indulges in the hope that the case will ultimately take on a more favorable aspect. It is true that in some cases there will be for a while considerable improvement, which will lead to the thought that the patient may finally recover. In other cases there is an evident fear on the part of medical attendants that the diagnosis may be incorrect, or that the symptoms are dependent on the presence of uncertain factors. Such a conclusion, however, at the present day should not obtain when it is considered that our increasing experience will enable us to decide most accurately in reference to the elimination of the existence of other possible causes. Assuming that our diagnosis is occasionally incorrect, the dangers of an exploratory incision are infinitely less than would result from allowing the symptoms to progress without availing ourselves of the advantages of an abdominal section, which in most cases is in any event, when pro-

perly carried out, a comparatively harmless procedure. The question often arises: should the surgeon, when called upon in the later stages of a case, advise operative interference? In answer to this it may be remarked that our experience is favorable to the adoption of an exploratory incision. When an operation is undertaken in the later stages, the patient must of course assume more risks, for the chances of recovery are much less than when an operation is attempted much earlier, though surgical measures at such late date may prevent the rupturing of an abscess into the peritoneal cavity. When there has been such a rupture, removal of the pus and cleansing of the parts may afford an opportunity for a retrograde process of the disease to take place. Nothing, therefore, but the occurrence of extreme collapse should weigh against the employment of operative measures. Some surgeons have advised that when the existence of peritonitis has become somewhat diffused, it should be regarded as a bar to the adoption of surgical treatment. It should, however, be remembered that the implication of the peritoneum may be dependent in any case on the presence of lesions that may have their origin at a distant point, and that the removal of the cause of such morbid processes may effect a speedy subsidence of the peritoneal inflammation. A peritoneal inflammation should always, according to the light afforded by recent pathological investigations, be considered only as a secondary affection to other processes that have had a more or less continuance.

Before closing this paper, I deem it important to say that in those cases of appendicitis which have gone on to suppuration before operative measures have been undertaken, there may occur secondary abscesses in other parts of the abdominal cavity. An operation to insure relief must therefore embrace a course of procedure that will afford a free discharge to all accumulations of puru-

lent exudation. It will sometimes be necessary to make an extensive dissection at different parts, and also to overcome adhesions of an unusual extent. Great care will also have to be exercised, lest an opening be made into an adherent intestinal mass. In some instances, portions of the epiploon may become gangrenous; there may occur in the veins of the abdomen an inflammation that may extend outward to the femoral and to other veins. In carrying out for these complications the necessary surgical treatment, much judgment will have to be exercised and much precaution taken that the dissection or search be not prolonged beyond what may afterward prove to be a beneficial or safe proceeding.

Society Proceedings.

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, March 31st, 1893.

JAMES STEWART, M.D., PRESIDENT, IN THE CHAIR.

Enchondroma of the Mammary Gland in a Bitch.—Dr. ADAMI brought before the Society a case of this condition on account of its rarity. Enchondroma has been very occasionally reported as occurring in the female, perhaps more frequently in the domestic animals. The present specimen, a bullet-like growth $2\frac{1}{2}$ inches in diameter, was obtained from a setter bitch, having been removed by Mr. Hart, one of our students, in conjunction with Mr. Tracey, veterinary student. The growth would seem to be of less than a year's duration, and to have originated after a rather severe mammitis. The bitch had a litter of puppies in February, 1892. There was some difficulty about the weaning, and one of the teats became injured and inflamed. The bitch recovered, but in the autumn a small lump was observed in the previously injured teat. It was removed at the beginning of last month.

The structure of this tumor is typical, it is slightly lobulated, and the centre is of bony hardness. Sections showed the lobules towards the periphery to be of hyaline cartilage, with some regions presenting stellate cells and less dense matrix; they were separated by bands of fibrous tissue. Deeper down, the matrix became

impregnated with calcareous salts, but even at the centre there was not true bone. There were large channels in which ran the blood vessels surrounded by loose cellular structure, but the surrounding osteoid framework possessed neither proper Haversian canals nor true lamellæ. Langlois, in the *Dictionnaire des Sciences Médicales*, gives a good account of these mammary enchondromata.

Papillomatous Outgrowth of the Lower End of the Ileum.—Dr. ADAMI exhibited for Dr. Wyatt Johnston the lowest three inches of the ileum presenting the above condition. Several tubercular ulcers had been found higher up in the ileum, but this last portion was quite free, and exhibited numerous delicate papillary prolongations, the longest from $\frac{1}{2}$ to $\frac{5}{8}$ of an inch in length. There was no sign of surrounding inflammation, and they differed both in appearance and structure from the larger coarser papillomata which not infrequently are found in the neighborhood of ulcers. These are beset by villi, and in structure most nearly resemble the hypertrophied projecting, solitary glands which are occasionally met with; but if this be their nature, their length and delicate finger-like appearance distinguishes them from the specimens usually encountered in museums.

Dr. WYATT JOHNSTON said that this very unusual specimen was obtained from a patient who had died from taking Paris green. At the autopsy there was found severe tuberculosis of the intestines, with but little elsewhere. In the lungs there were two tuberculous foci, each about the size of an almond, and were composed entirely of little, grey miliary tubercles; there were also signs of old cicatrices in the apex of one lung. The case appeared to present the unusual conditions of primary intestinal tuberculosis, there being extensive ulceration of the cæcum and ascending colon.

The case is of interest from a medico-legal point of view, as to the possible interpretation that might be put on these ulcerations in view of the history of poisoning by arsenic. In regarding them from the side of the mucous membrane it would be difficult to say positively that they were tubercular; but in viewing them from the serous coat inward, their tubercular nature becomes quite evident. The polypoid nature of the growths is very interesting. They usually grow in the large bowel, and when they occur in the small intestine they are usually in connection with leukæmia. The little projections contain lymphoid follicles arising from the lymphatic tissue of the submucosa.

Dr. LAPHORN SMITH said that for the purpose of comparison with Dr. Johnston's specimen he had brought one shown by himself some meetings back. They are papillæ obtained from a papillomatous disease of the large intestine about the region of the sigmoid flexure. Dr.

Adami, at the time, made a microscopical examination of these shreds, and pronounced the growth benign, to the great relief of the patient. They resemble Dr. Johnston's specimen to the naked eye.

Dr. WESLEY MILLS, referring to the specimen taken from the bitch, said that enchondromata are rather unusual, although tumors of the mammary glands are quite common and tend to become malignant. By far the most remarkable tumor that he had ever seen in connection with the mammary gland was a cyst containing a large worm, some five or six inches long. This position for such a parasite was one of the most remarkable cases he had ever heard of. The bitch belonged to him, and he had removed the tumor.

Dr. ADAMI hoped that Dr. Smith would not express too sanguine opinions with reference to the non-malignancy of the intestinal growth submitted to him for examination some time ago. While from the appearance of the tissue examined it was undoubtedly benign, it is well known that these tumors, although at one time quite benign, may later take on malignant growth. Such growths were of a much coarser nature than Dr. Johnston's specimen.

Nephrectomy through Abdominal Incision.—Dr. LAPHORN SMITH exhibited an enormous kidney, and gave the following history of the case: The patient was sent to me with what was supposed to be a large multilocular ovarian cyst. The tumor so completely filled the abdomen as to be immovable. The uterus was pushed downwards, backwards and to the left by the growth. The tumor seemed to rest on the brim of the pelvis. On the bowels being well emptied I felt pretty sure that this was a tumor, not of the uterus, but of the kidney. I suspected pyelo-nephritis. When I opened the abdomen the tumor at once presented, but with a layer of peritoneum over it. After selecting a spot in the peritoneum where there were no vessels, we (Dr. Lockhart assisted me) made an opening, and proceeded to dissect the peritoneum off the tumor. On reaching the back we found a large pedicle, which was regularly ligated. We then found the incision too small to deliver the tumor through; the latter was then tapped, when it immediately collapsed, and delivery was easily effected. The renal artery was tied, and the kidney removed without any great difficulty. We then washed out the abdominal cavity with boiled water, and inserted a drainage tube at the lowest part. The pedicle was dropped into the cavity. During the operation there was little or no bleeding, and afterwards there escaped from the tube in the first 24 hours about two ounces of blood, when the discharges rapidly became serous in character. Since the operation the patient has had almost no pain, and temperature has been normal. On

opening the kidney it was seen to be sacculated, and in one of the sacs a calculus was found. In regard to the condition of the urine, before the operation it was free from albumen, but very scanty in quantity. The first 24 hours after the operation she only passed 8 ounces, the next 24 hours the quantity had gone up to 20 ounces. No water was allowed to be taken by the mouth after the first 24 hours from operating.

DISCUSSION ON TUBERCULOSIS—*Continued.*

Dr. LAPHORN SMITH, in opening the discussion, said that Dr. McEachran's paper was the very thing necessary to rouse the profession to a true way of looking at the matter. The infectious nature of tuberculosis has been more readily accepted by the public than by the profession, and in this respect the profession is not altogether free from blame. The public should have been long ago fully informed of the nature of this disease, for as a result of their ignorance thousands have died from exposure to infection—anæmic girls put into the hospital wards with tuberculous patients; young men in lodging houses occupying the same bed or same room with chronic consumptives; young girls in boarding schools or convents.

We have so far laid too much stress on the idea that consumption is hereditary, and this is largely due to the habit of insurance companies inquiring into all the branches of the family tree, but it never seems to occur to them that a person may contract consumption by sleeping in the same room with another in the last stage. He had met cases again and again where a perfectly healthy girl contracted consumption in a few months from a tuberculous husband, and cited a case here in Montreal of a young girl who moved into a house in May, in which a consumptive had died in April, and before six months had elapsed she had contracted the disease herself.

The children of consumptives are not more likely to die of consumption than anyone else, if they are timely removed from infection. The death rate from tuberculosis among children in the hospitals in Paris, the greatest number of which are taken from tuberculosis parents, is not greater than that prevailing amongst children elsewhere. This Society has great influence, and if it sends out advice to the public, the advice will be well received. We can stamp out consumption as well as we can stamp out small-pox.

Dr. F. W. CAMPBELL thought that perhaps he was one of those men who have been educated by insurance companies to look upon the transmissibility of this disease from one generation to another as the all-important factor. There are sometimes facts which present themselves to a man's observation and which he fails to realize. The facts as regards the contagious-

ness of tuberculosis, which now seem so plain to our eyes, were no less plain ten years ago; but not having the theoretical knowledge of today to work upon, they either remained as stumbling-blocks in our path, or were explained on other lines. In connection with tuberculosis, not only as a disease which we may communicate to one another, but also as one which may be contracted from the lower animals, we must remember that our patients should be guarded, not only against exposing themselves with friends who have tuberculosis, but also that the importance of enquiring into the nature of their food supply, especially that of milk and meat, should be duly impressed upon them. We will never reach the bottom of the difficulty until we get a thoroughly honest and scientific investigation of the city milk and food supply. So long as the milk is allowed to be delivered without bacteriological investigation, so long will our efforts be futile; we may isolate, we may carry out antiseptic processes in the treatment of our patients; but so long as the milk and flesh of tuberculous animals is allowed to be used by the public, just so long will we have tuberculosis existing to an enormous extent among the population.

Now, although inheritance is no longer regarded as the sole factor in the etiology of phthisis, it is of unquestionable importance in this respect. There seems to be a great susceptibility of persons, under certain conditions, for the absorption of the tubercular poison. But there is no question as to the advisability of treating the affection as a contagious disease. The absolute necessity of at least partial isolation must be borne in mind. So far as occupying the same bed or the same room is concerned, so far as having every particle of expectoration disinfected or destroyed, the principles of antiseptics must be rigidly applied. The patient should be required to spit into cloths or a paper spit-box, which may be destroyed. So long as these precautions are neglected, just so long will we have tubercular patients. We may never get rid of the disease altogether, but there is a great future before us in modifying its existence. The first thing to do is to absolutely impress upon the people the idea that it is absolutely a contagious and infectious disease.

The treatment of tuberculosis is a question of great difficulty to the medical practitioner. When a tuberculous patient comes to him, he is in a difficulty to know what is the proper advice to give. There is not a physician who, the moment he gets such a case, does not feel that he has a very complicated matter to deal with; it is often a matter in which finances play a great part. Many of us have of late been sending patients to Florida, to California, or to the heights of Colorado; but the amount of money required to enjoy such resorts will, in a great many instances, be beyond the means of the individual.

Now, we have within reasonable reach a place which is before long to stand pre-eminently the home for consumptives, and which is only a few hours ride from Montreal. There is to-day in the Adirondacks a sanitarium, under the care of Dr. Trudeau, which is indeed a very excellent place. This gentleman has done a great deal to make a good home for consumptives, his charges are only five dollars a week, which includes the medical attendance; he treats cases, and treats them very successfully, almost entirely by keeping them in the open air, amongst the pines. Thus, while we have so desirable a locality close at hand, we should hesitate before recommending long journeys and great expense where fatigue and money are subjects of consideration.

Dr. ARMSTRONG thought that it would be a wise proceeding if the facts brought out in the discussion were put in pamphlet form and sent to each member for consideration, and that some means should be adopted to spread this knowledge among the laity, for by so doing it would lighten the burden of the family practitioner. Every medical man knows how difficult it is to get families to carry out proper precautions when the disease is in their homes, because they do not realize the danger.

Dr. WESLEY MILLS had noticed, in watching the progress of thought in the profession, a very dangerous tendency to swing round from one extreme to another. This is very well seen in the relation of heredity to tuberculosis—from considering it the sole factor, we are coming to regard it as of no importance whatever. If we were to assume that heredity has nothing to do with the subject, we would be making a mistake, and a little consideration will show that all modern physiology and pathology attach as much importance to the invaded cells as to the invading ones. Heredity means the same tendencies in the offspring as in the parents; it may be associated with similarity of form, or it may not; it may be visible or invisible, but it is there. Now, we all know from the experience of breeders that an hereditary tendency can in the course of generations be annihilated, and this fact should be borne in mind in the forming of human alliances. By an injudicious alliance an inherited tendency to a disease can be intensified, just as it can be lessened by a judicious one. So that in spite of bacilli and antiseptics it is not less but more important than ever that people should be warned in making their alliances for life. It is true that an individual who has no special predisposition, when sleeping with a phthisical patient, may contract the disease, but that is an extreme case, and under such circumstances the infection must be due to the enormous quantity of the germs. As a rule, a person who has no predisposition will not contract the disease, and an alliance of a predisposed person with such might help to

eradicate the tendency. There are many instances in pathology when the contraction of the disease depends upon the quantity of the germs, and it is to such circumstances we must attribute infection where no predisposition exists. As to the question of whether the bacilli themselves can be inherited, it has been shown that the placenta has contained not only actual bacilli, but actual tubercles. What we have yet to determine is whether there is actual intra-uterine infection or not.

During the past few years he had bred many hundred pigeons of high breed, that is to say, pigeons which have deviated much from the normal by man's selection. Such organisms are easily disturbed, and disease works great ravages amongst them. It is his custom to make post-mortems on all deaths; some of them were submitted to Dr. Johnston, and by this means many facts about tuberculosis have been acquired; one is, that the organism is quite as important as the bacillus. For a time there was but a little of the disease, at other times considerable. How is that to be explained? The strains he was dealing with were known, as well as that environment which is best suited for resisting all sorts of disease. It is also known that in birds there is one particular period of the year at which their vitality is at the lowest, namely, when they are changing their feathers, which they do completely once a year. When the amount of feathers on a bird is considered, the amount of metabolism that is required to restore these feathers, and also when many of these feathers have blood at their base, it can easily be understood how the bird's vitality must at this time be at its lowest ebb; and it is at this period that tuberculosis, enteritis, etc., is most prevalent amongst them. Then again, during the cold weather we have many instances of tuberculosis amongst our birds. These are splendid instances of how condition and environment may determine disease. Tuberculosis runs in birds a very rapid course. Symptoms of a serious nature may be absent to within a few days of death; even death may result without profound emaciation.

Dr. G. P. GIRDWOOD could not disregard a hereditary tendency to the disease. Whether tuberculosis passes direct from the parent to the offspring, or whether it is some weak constitution brought about by the union of two people with a mal-affinity, may be a disputed point; but every old practitioner knows it as a matter of observation, that in certain families all the individuals, one after another, die off as soon as they arrive at a certain age. In other families you find the greater part die off in consumption, all but one or two, and these usually the scapegraces, who have probably lived a less sedentary life—have lived more in the open air.

There is another point in connection with heredity, and that is, that a peculiarity of constitution may be developed which has no congenital antecedent in the nature of either parent, but that some transient condition of either or both parents, some depressed vitality, may at the moment of conception beget a constitution for the offspring which renders it liable to attacks of the bacillus in after-life.

He had also seen associated with tuberculous disease, madness and cancer. There were families of which several members die of tuberculosis, some of madness, others, especially the girls, of cancer. Now, it may be all the one tendency which takes a particular turn in certain constitutions, now developing into tuberculosis, now into cancer, and again into madness. Again, there are cases of acute mania in young men and women who recover and afterwards die of tuberculosis, which shows another association between madness and tuberculosis. Where this tendency lies is a disputed point.

With regard to the treatment of tuberculosis, he was strongly of the impression that the proper place for a sick man is his own home. All the advantages of distant places can probably be obtained at home, such as open air and exercise which keeps a man employed out of doors, and surroundings which conduce to health. These will place the patient in the best possible position to fight the bacilli. There is also a moral aspect of the question: What right has one member of a family to spend the money required for a change of climate, when by doing so it often means harassing, if not impoverishing, the rest of the family?

Dr. RODDICK, speaking of the treatment, said that sending patients away is a subject of considerable importance, not only to the patient, but to those with whom the patient has to travel. In a trip to the South recently, he was obliged to live for a day and a half in a sleeping car with three persons very far advanced in phthisis. It not only impressed him very much, but many others in the same car; one lady absolutely refused to travel with them; she cannot be blamed, as she was in delicate health. Three years ago he had crossed the Atlantic with a man who was going to the south of France; he was locked up in the same berth with this man, who was constantly complaining of draft and would insist on having the door closed. Such people are unquestionably dangerous, and should not be allowed to travel in sleeping cars or steamboats, except under special circumstances. In fact, in the South, where they have much experience of the results of such practices, so thoroughly alive is popular sentiment to the danger of contagion, that many people will not occupy a room in a hotel unless it has been first as completely disinfected as if there had been a case of scarlet fever occupy-

ing it previously. This is causing so much extra expense that they are now refusing to receive consumptives in the hotels, and probably it will soon come to pass that in Southern resorts these unfortunates will have recognized quarters which they must occupy, and no others.

Dr. McEACHRAN, in answer, said that he felt sure the remarks made, if published, would have a very valuable influence relative to the treatment of the disease in the lower animals, and causing some steps to be taken with a view to even controlling it among human beings.

When statistics in the human subject are looked for, they are not as easily furnished as in the case of cattle; but if the similarity of the disease in animals and man can be shown, the facts furnished from the former should serve as data for our manner of dealing with the latter. With regard to copulation as a means of propagating the disease, he quoted several instances of unquestionable transmission in this way, and in this respect it can pass as readily from the male to the female as from the female to the male. He had met with many instances which show beyond doubt the communicability by contact, sometimes produced by the males, sometimes by the females, of this dread disease.

He thought that if the Society goes before the public, and makes strong statements as to the nature and manner of dealing with the disease, it will be doing a work which shall prove a lasting benefit to the country; while so far as Government interference with the disease in animals is concerned, something will be done in the near future. The Government is going to get up pamphlets, distribute them broadcast, and have the public informed of the true nature of the disease. Now, if the medical part was equally made known, the combined effect would be a work of very great good.

Dr. ADAMI, in answer, said he was very glad that this subject of heredity had been brought forward. The right view, that is, the one which has been fairly well accepted, is that heredity does not imply an inheritance of the bacilli, but rather an inherited weakness towards resisting this particular germ. With regard to whether the foetus is ever affected, there are two, if not more, undoubted instances recorded in which the foetus has been affected by tuberculosis. There is no question but it can occur, but it is of very rare occurrence.

In conclusion, he agreed with what Dr. McEachran and every speaker had said, that information upon this subject should be widespread, and that the public should be made acquainted with the extreme infectiousness of this disease, and that we should do our best in every way to stamp out this terrible scourge.

The PRESIDENT named the following committee to draw up rules in accordance with the discussion: Drs. A. D. Blackader, McEachran, Laberge, Adami and Wyatt Johnston.

ABSTRACT OF THE PROCEEDINGS OF
THE THIRD ANNUAL MEETING OF
THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

HELD IN CHICAGO, SEPTEMBER 12, 13 AND 14,
1893.

AUGUSTIN H. GOELET, M.D., *President*.

FIRST DAY—SEPTEMBER 12th.

MORNING SESSION.

The Association was called to order by the President, Dr. Goelet, and after the transaction of some routine business, the President delivered the annual address, taking for his subject, "The Influences Governing the Progress of Electro-Therapeutics."

He said that last year in a spirit of humor the Association had been referred to as a vigorous infant, but its vigor was readily explained when it was remembered that it boasts of three parents. In the beginning it was predicted that it would never prosper, but would die young—even before the completion of its first dentition. He thought, however, that its present state of health and prosperity was sufficient evidence that it was destined to a long life of great usefulness and a ripe old age. He thought the inauguration of this Association marked an event in medicine quite as important as any that had occurred within the present century, because it established a recognized position for an important and long neglected branch of therapeutics. The need of such an Association was quite evident to anyone who had attempted to present technical papers upon electrical subjects at other medical societies where there is usually so much unreasonable opposition to electro-therapeutics that profitable discussion is impossible.

The work thus far accomplished he considered very creditable for so young an organization, particularly as the field is entirely new, and in the beginning involved much uncertainty. He emphasized the fact that the methods adopted must bear investigation and the stamp of scientific reasoning. Results, he said, may be doubted, but methods based upon scientific laws could not be questioned.

Electro-therapeutics must contend with the natural opposition by the profession to every new inroad upon old and established methods. The fact that it is not more universally employed is due to a want of appreciation, and was attributed to restricted medical education and unfamiliarity with electro-physics and electro-physiology. Some of the more progressive of medical schools, he was pleased to observe, were beginning to realize the necessity of teaching this branch of therapeutics. The imperfections of past methods, which were certainly

unscientific, likewise operated greatly against a proper appreciation of modern electro-therapeutics. This could be overcome by diffusing a more general knowledge of the true position occupied by electro-therapeutics, and its successful accomplishment depended greatly upon the character of the work done by the Association and upon the personality of its members.

The progressive spirit of the Association was well shown by the fact that there were no less than six committees charged with investigating scientific questions having an important bearing upon the different branches of the subject. He regarded the admission of other scientists from the electrical world to membership in the Association a step in the right direction, and further evidence of its progressive nature.

He recalled the fact that within the past five years scarcely a year had elapsed without the development of some new and important feature involving the application of electricity in some one of its forms. As an instance of this, he cited the development of metallic electrolysis and its extensive application, also the alternating sinusoidal current of D'Arsonval and the capabilities of the interrupted induced current obtainable from modern apparatus.

The important improvements that have been made within the past few years in induction apparatus, whereby an increased frequency of interruption and an increased electro-motive force of the current was obtained, he thought deserved special mention. The possibilities of this current, from a therapeutic standpoint, are quite beyond the conception of anyone who has not had a practical clinical experience with it.

The programme of the present meeting gave abundant evidence of the advanced thought and work which have characterized the Association ever since its inception, and it was evident that electro-therapeutics is steadily progressing towards an exact science.

Attention was directed to the fact that, though concerted effort for electro-therapeutics is still young, its influence upon the views prevailing in medicine is already distinctly manifest.

In conclusion, the President declared that by conjoint efforts electro-therapeutics would be brought to that scientific plane which would make its most strenuous opponents their most cordial supporters.

The next order of business was the reading of "Reports of Committees on Scientific Questions."

On Standard Coils.—The Chairman of this Committee, Dr. William James Morton of New York, said that the subject was so large, and each month was bringing so many new facts, that it seemed premature to make a report as to what should constitute a standard coil. On motion, the committee was continued.

On Standard Meters.—Dr. Margaret A. Cleaves of New York read a report of this Committee. The report stated that a good meter should possess a clear, legible scale of long range, and should be so constructed that it could be easily read by the operator while at work; that although in itself a shunt is not disadvantageous, it is undesirable, because of the possibility of its heating and thereby changing its resistance; that the instrument should indicate in all positions, and is preferable when constructed to indicate with the current passing in either direction; that it should be very portable; and lastly, that it should not easily get out of order. Instruments of the galvanometer type were considered to be inaccurate on account of the magnetic influence exerted by surrounding objects.

Then followed a detailed description of the nine meters which had been submitted to the Committee for examination, and the tests to which these instruments had been subjected. The report concluded with the statement that in the opinion of the Committee the two meters which most nearly fulfilled the requirements were the Weston and the Kennelly meters, and the Association was urged to adopt at once a standard meter.

The report called forth a long and earnest discussion as to the advisability of adopting at present a standard meter. Some of the members were of the opinion that one of the meters especially recommended by the Committee had not been sufficiently long before the profession to enable many of those present to pass intelligently upon its advantages or disadvantages, and they therefore deprecated hasty action. Others thought it was impossible to combine in any one meter all the points a meter should possess in order to render it a thoroughly reliable instrument for all kinds of clinical works; and they consequently favored the adoption of two types of standard meters. It was also suggested that to avoid unnecessary discrimination the Association should adopt a type of meter as a standard rather than any one particular instrument. The report of the Committee was finally accepted, and the Chairman of the Committee continued.

On Static Machines.—Dr. Morton reported that in order to pursue their investigations systematically, a number of questions had been sent out in a circular letter, but no responses had been received. The Committee made the following recommendation: That electro-static machines adapted to medical practice should not have less than four revolving plates, and that the diameter of these plates should not be less than twenty-six inches. The report of the Committee was accepted and the Committee continued.

On Constant Current Generators and Controllers.—Dr. W. J. Herdman, of Ann Arbor,

read a carefully prepared report on this subject, in which he considered in detail the work accomplished by the various batteries which had been submitted to him for examination. No secondary batteries had been submitted, and mention of one or two batteries which had only been very recently sent in was omitted for lack of time to make the necessary tests. On motion, the report was accepted, and the Chairman of the Committee continued.

On Electrodes.—Dr. A. Laphorn Smith, of Montreal, read a report of the committee. The committee expressed the opinion that the best ground-work of all electrodes is copper wire gauze, and that the connection is best made by copper wire soldered the whole length of the gauze and terminating in a binding post—that known as No. 6-32 (?)—which is largely used by telephone companies throughout the world. Clay was considered the best covering, as it was the only substance which could be rendered moist enough to conduct properly without at the same time soiling the patient's clothing. It should be half an inch thick and of the consistency of putty. Before each application it can be readily cleaned by washing its surface with soap-suds. The back of the electrode is insulated with common table oilcloth.

The committee recommended three sizes of dispersing electrodes, viz.: each having a uniform length of one foot, and the width three, six and nine inches respectively. It was desirable that these sizes should be given in the metric system. For active electrodes to be used with the positive pole, the committee naturally selected platinum as the best, its one objection being its first cost. Where the applications are to be made to the surface of the body or to the interior of a cavity like the uterus, carbon is equally good, and for such purposes carbon beads can be threaded on platinum wire. Zinc is also a useful material for intra-uterine galvano-cauterization. It should be connected with the reophore by means of the standard binding post already mentioned. It was recommended that the conducting cords employed in electro-therapeutical work should be of the standard sizes and lengths used by the Bell Telephone Company.

For negative intra-uterine application, a Simpson sound made a useful electrode, and its size should be stated according to the French scale. Where the surface of the electrode is necessarily very irregular, its area should be determined by ascertaining how much water it will displace. It will be well for manufacturers to stamp all electrodes with two numbers—one giving the French scale, and the other the displacement of water on the surface of the electrode.

The committee recommended that a standard insulating material be adopted, and that the standard screw should be No. 2-40 of the American gauge.

All electrodes should be washed with soap-suds after each application, and boiled for five minutes before being used again.

Dr. Morton supplemented this report by presenting certain electrodes which he had devised, and which had proven useful in his practice. The first was a rubber covering for dispersing electrodes. It was an elastic rubber cap which would slip over the various sized electrodes, and which formed a pocket around the electrode, thus catching the water which would otherwise leak out on the patient's clothing. The second instrument was a new cataphoric electrode. With the usual form of this electrode it had been found impossible to apply the desired quantity of the medicated solution to the electrode without increasing the thickness of the blotting-paper, to such an extent that it interfered with and sometimes wholly prevents cataphoresis; for it is essential that the distance between metallic conduction and electrolytic conduction should be reduced to a minimum. To obviate this defect, Dr. Morton had an electrode made in the form of a hollow box of hard rubber, the bottom of the box being formed by a piece of block tin perforated with numerous small holes. The box is filled with the desired quantity of the medicated solution, which passes through the small openings in the tin bottom and is fed to a thin piece of blotting-paper on its lower surface. In this way any quantity of the solution may be employed without interfering in the slightest degree with the cataphoric action.

The third instrument exhibited was an Apostoli intra-uterine electrode insulated at the tip and at the cervical portion. In conclusion, the speaker referred to the advantages of punk as a covering for electrodes, and said his patients invariably found it the most agreeable covering of any employed. It had the great advantage of remaining moist for a long time.

Dr. G. Betton Massey, of Philadelphia, said that two years ago he devised an electrode made of a spiral of platinum wire enclosing a second spiral, the object of this construction being to facilitate rendering the instrument aseptic. A flat coil of No. 20 wire was in his opinion a much better basis for an electrode than gauze. If the French scale were employed, he thought it should indicate the diameter and not the circumference of the instrument.

Dr. Franklin H. Martin, of Chicago, called attention to the fact that he was the first one to invent and exhibit a spiral electrode. His instrument was first brought to the notice of the profession in 1887.

Dr. J. B. Greene, of Indiana, preferred the English to the French scale. The best material he had ever used for an electrode was moistened wood-pulp; it was an excellent conductor, and so cheap that it can be thrown away

after use. In his opinion, it would be impracticable to fix upon standard sizes for electrodes.

A communication was read from Dr. Lucy Hall Brown, of Brooklyn, in which she recommended a special electrode made of perforated brass plate covered with punk, and connected to the reophore by a peculiar spring clamp which she had devised.

On Investigation of Dr. Newman's Statistics in Urethral Stricture.—The committee, consisting of Drs. A. H. Goelet, Wm. J. Morton and W. J. Herman, reported that they had made a very careful and conscientious examination of Dr. Newman's records and statistics, and had asked, but unsuccessfully, for the co-operation of certain general surgeons. The committee unanimously agreed that Dr. Newman's statistics fully substantiated the claims he had made.

AFTERNOON SESSION.

Dr. Newman, of New York, read a paper on "Electrolysis in Tumors of the Bladder."

The author considered only cases of non-malignant tumors in the female bladder. If the bladder be very irritable, the preparatory treatment should consist in the careful use of medicated injections, by which means a bladder which can hardly retain four ounces may be made to tolerate as much as twelve ounces of fluid. For the proper use of the cystoscope it is necessary to have from four to six ounces of fluid in the bladder. The cystoscope is first used to locate the tumor, and the author advised that its use should be immediately followed by an examination with the endoscope. By means of the rubber ring slid on to the instrument it is easy to locate the distance of the tumor from the meatus. Indeed, he had found comparatively little difficulty in subsequently cauterizing the exact spot desired. The constant current of a galvanic battery was invariably employed, and except where it is necessary to control hæmorrhage, the negative pole was the one selected. The average current strength was 10 m.a.; each sitting lasted from five to fifteen minutes, and the intervals depended upon the result of each sitting and the condition of the patient.

There are two methods of electrolysis, general and local. General electrolysis has a specific absorbing and healing effect upon a tumor, and may be employed when the patient cannot tolerate other measures. Local electrolysis may be performed: 1st, by means of a little bulb placed in contact with the tumor; 2ndly, by the introduction of a platinum needle; and 3rdly, by fixation of the tumor and the introduction of a platinum needle into the tumor.

- To be continued.

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MONTREAL, NOVEMBER, 1893.

THE STAMPING OUT OF TUBERCULOSIS IN CATTLE AND IN MAN.

As a result of the discussion of this subject at the Medical Society of Montreal last session, the Government of Canada has with commendable energy set about eradicating this disease from the herds of Canada, beginning by the slaughter of all the animals found to be infected on the experimental farms. The diagnosis is made with Koch's lymph, and appears to have been verified in every case by the subsequent autopsy.

So far, however, little has been done towards banishing the fell disease from the midst of the six millions of human beings among whom its presence is annually causing financial loss and general misery, in comparison with which the few million dollars involved in the cattle interest are a mere bagatelle. It is unnecessary for us to go into elaborate calculation, estimating the annual cost of consumption to a country like ours; everyone who reads this is only too well aware of the expense and loss of earning power which it inflicts. The most important question is: Can anything be done to prevent or at least to diminish it? The answer is, we think, decidedly, Yes.

To begin with, a great deal can be done without at all interfering with the liberty of the unfortunate people. In our experience of consumptives, at least 75 per cent. of them were so poor that they would gladly have accepted an invitation to become the guests of the State;

in fact, a great many of them applied in vain for admission to our overcrowded hospitals. We feel sure that if the information which we now possess concerning the contagiousness of the disease were scattered broadcast, and at the same time the Federal Government would establish a free sanitarium for consumptives, at least 75 per cent. of all the consumptives in the country would voluntarily apply for admission. They might be accepted on condition that they would promise to remain until they died or were cured. We say cured, for there is not the slightest doubt that many cases would be cured under special treatment. Microscopical examination of the sputa would easily decide when the latter were free from bacilla and when the patient might return to his family. It is difficult to realize the magnificent results from the removal of even 75 per cent. of this foci of infection. But even the remaining 25 per cent. among the well-to-do classes would soon be educated up to the point of making a little self-sacrifice for the sake of those they loved, and before long private sanitariums for pay patients would be opened for the reception of those who were able and willing to pay their own expenses.

Neither does it follow that the inmates of the vast free national sanitarium would be condemned to enforced idleness; on the contrary, farming and many other outdoor occupations are eminently conducive to the ventilation of the lungs, which is one of the first steps in the process of killing the parasitic fungi of the disease. The establishment would probably in a short time become self-supporting. The great objection to this very rational scheme is of course the expense. But are human lives not worth fully as much as those of cattle? If so, then no matter what the cost, the Federal Government is justified in incurring the expense of stamping out this plague from the homes as well as from the stables of Canada.

A UNIVERSITY OF CANADA.

More than once the establishment of such an institution has been advocated in these columns, but, until lately, without much prospect of success. The idea, however, has been steadily growing in favor with the profession, and before many years we hope to see it *un fait accompli*.

At present a physician of the highest standing, the Dean of McGill College, for instance, might be prosecuted for practising without a licence on one side of the Ottawa river in Ontario, although he would be entitled to practise in the village of Hull, a quarter of a mile distant, in the province of Quebec. This arrangement or lack of interprovincial reciprocity is felt to be such an anomaly that various schemes have been proposed for its remedy. All are agreed that there should be some kind of a Federal or Dominion licensing board whose diploma would carry with it the right to practise in any part of the Dominion. It seems to us, however, that if such a piece of machinery is to be organized, it would be better to make it the best of its kind, and call it a University, modelling it after the most illustrious University at present in the world,—the University of London. This would in no way interfere with the rights of the various Medical colleges, which could continue to exercise their teaching and even degree and diploma-giving functions, for the University of Canada would not be a teaching body. The duties would simply be to meet at Ottawa once a year, for a week or longer, for examining purposes only, and anyone from any land presenting proper guarantees of previous general education, and paying a fee of, say, one hundred dollars, could present himself for examination. This would provide a long-felt want for some standard portal through which the graduates of all the schools might pass if they were able, and go forth on a perfect equality. There is no doubt that on the establishment of such a University, and adducing proof of its high standards, its degree would be accepted by England and France on reciprocal terms. A talented Canadian, who has the glory of our country deeply at heart, and who is now a leading London surgeon, has urged us to advocate persistently the great step towards convincing the world that medical education in Canada is second to none. The examiners should be chosen for merit only from the teachers in all parts of the Dominion, the fees for examination offering ample remuneration for their time and travelling expenses. We would strongly urge those who have the question of a Dominion license in hand to make it take the form of a University degree, and forthwith bring the matter before Parliament at its next session.

THE CLOSURE OF THE KINGSTON WOMEN'S COLLEGE.

After several years of brave struggling to keep open in the face of many discouragements, the above College has been compelled to close its doors, and the female students have been transferred to the excellent Women's Medical College of Toronto. Many of them would have come to Montreal had any of the medical schools been able to receive them. But the McGill Medical Faculty is opposed to female medical students, and the Faculty of Bishop's College, which is favorable to them, has unfortunately no hospital facilities for clinical instruction, the authorities of both the Hotel Dieu and General Hospital having declined to admit them to the practices of the hospitals. So that Bishop's College, which made considerable preparations for the reception of female medical students, sees them drawn away to Toronto, owing to the action of the governors of the General Hospital. With so many difficulties to contend with, we fear that Bishop's College will never attain a satisfactory position until it has at its disposal hospital facilities of its own, and to this end we think she should devote all her energies. The acquirement of hospital facilities is all the more important now that the whole tendency of modern medical teaching is inclining towards clinical instead of didactic lectures. The loss of these female students is the more to be deplored at the present time, when the number of male students has been considerably diminished by the financial depression in the United States. We hope that some wealthy friend of the College may come forward with a liberal endowment for a general hospital, so that the students of Bishop's may be able to obtain there clinical instruction, without having, as at present, to depend for it upon the good nature of the professors of rival schools. As it is, the vast endowment of McGill and Laval with a large corps of paid teachers renders it very difficult for a small and unendowed college to attract pupils; for no matter how willing the unpaid teachers may be, they must attend first to their private practice, on which their livelihood depends.

ANNOUNCEMENT.

(For English-speaking Candidates.)

COLLEGE OF PHYSICIANS AND SURGEONS OF THE PROVINCE OF QUEBEC.

PROGRAMME OF THE PRELIMINARY EXAMINATION FOR 1894.

Latin.—The *Commentaries* of Cæsar, Bks. I, II, III, IV, V.—The *Æneid* of Virgil, Bks. I and II.—The *Odes* of Horace, Bk. III. A sound knowledge of the Grammar will be required.

English.—A critical knowledge of Shakespeare's play of HENRY VIII. Questions of grammar, Etymology and Analysis.

French.—Translation into English of passages from "*Telemachus*," with questions of grammar and parsing. Also translation into French of easy English sentences.

Belles-Lettres.—Principles of the subject and of Rhetoric; also History of the Literature of the age of Pericles in Greece, of Augustus in Rome and of English and French Literature of the 17th, 18th and 19th centuries.

History.—A general knowledge of the History of Greece and of Rome, and a more particular knowledge of British, French and Canadian History.

Geography.—A general knowledge of the subject, and more especially of England, France and North America.

Arithmetic.—Must include vulgar and decimal fractions, simple and compound proportion, interest, percentages and square root.

Algebra.—Must include fractions and simple equations of two unknown quantities.

Geometry.—The first three books of Euclid and principal propositions of the Sixth. Also the measurement of the lines, surfaces and volumes of the regular geometrical figures.

OPTIONAL SUBJECTS.

The Candidates must select one of the following.

Greek.—The *Anabasis* of Xenophon, Bks. I, II, III, and the *Iliad* of Homer, Bks. I and IV, with questions of grammar.

Physics.—General principles as in Peck's translation of Ganot.

Philosophy.—Logic with Mental and Moral Philosophy.

N.B.—Candidates must produce certificates of good moral character. Any candidate detected in copying or in aiding another to copy, or in using books or notes, will be immediately dismissed from the room. At the conclusion of the examination, each candidate will be required to make before a magistrate, then present, a solemn declar-

ation that he has not had recourse to any fraudulent means to aid him in the examination. He must also furnish proof of his identity.

ORDER OF SUBJECTS AND NUMBER OF MARKS FOR EACH.

FIRST DAY.

Group A.	Latin.....	from 9 to 11.....	200 marks.
	History.....	" 11 " 12.....	100 "
	Geography...	" 12 " 1.....	100 "
	French.....	" 2½ " 4.....	150 "
	English.....	" 4 " 5½.....	150 "
	Belles-Lettres	" 5½ " 6½.....	100 "

SECOND DAY.

Group B.	Geometry.....	from 8½ to 10.....	100 marks.
	Arithmetic....	" 10 " 11½.....	100 "
	Algebra.....	" 11½ " 1.....	100 "
	Optional Subject.....	" 2½ " 4.....	200 "

NOTE.—A Candidate must obtain half the total marks allowed for Group A. in order to pass in that group. So also for Group B.; but his failing to pass in one of the groups will not nullify success in the other.

Further, in order to pass in the several subjects, a candidate must obtain marks for them as follows:—

For English, being the mother tongue, three-fourths of the marks.

For Latin, Arithmetic and Optional subject, one-half of the marks for each.

For all other subjects, one-fourth each.

Lastly, if a candidate fail in any one subject of a group, he will be required to repeat examination in all the subjects of that group, though he may have been successful in the other group.

H. ASPINWALL HOWE, LL.D.,
J. C. K. LAFLAMME, LL.D.,
HENRY WATTERS, B.A.,
PROF. CHARLES ALBERT PFISTER,
Examiners.

BOOK NOTICES.

A MANUAL OF MEDICAL TREATMENT OR CLINICAL THERAPEUTICS. By I. Burney Yeo, M.D., F.R.C.P., Professor of Therapeutics in King's College, London. In two 12mo. volumes containing 1275 pages, with illustrations. Complete work, cloth, \$5.50. Philadelphia, Lea Brothers & Co., 1893.

This work is devoted entirely to the treatment of disease, being the first we have ever seen of the kind. There are many excellent works on therapeutics, but this is the first work devoted to clinical therapeutics. For this reason, and

also because it is written in such charming language, this book is really interesting. More than once we have taken it up to glance over it, which, we are sorry to say, is all the time we can spare for the work of reviewing, but after an hour's reading we were unable to lay the volume down, and, instead of writing a notice of it, we have just read on and on. As the author says, he has approached the subject from the side of the disease and not from the side of the drug or remedy. Only enough of the pathology and etiology of disease is introduced as is necessary to arrive at the rational indications, without which the administration of a drug can hardly be called scientific. Half a dozen choice formulæ by leading London physicians are appended to each chapter. The author deprecates the modern tendency to prescribe new remedies, some of them patent chemical agents merely on the recommendation of the manufacturers. There is no doubt that many medical men are the poor tools of the wealthy drug exporter, and many a physician of good ability has prescribed himself out of practice, when, if he had stuck to the well-known standard drugs which have stood the test of years, he would have reaped a splendid success. It is impossible, of course, to specially notice all the good qualities of this work, we can only take up a few in which we are more especially interested—for instance, the article on habitual constipation is a remarkably clear one. The author points out that in many of such cases, the patient does not take in a sufficient quantity of water, so that after the other organs have been supplied, none remains over with which to keep the contents of the bowels soft; others again, he says, owing to defective appetite or painful digestion do not take a sufficient quantity of food to yield the necessary stimulus to peristaltic contraction in the intestinal canal. He lays great stress on the necessity for bodily exercise, and where this cannot be obtained in sufficient amount, he recommends abdominal massage along the whole course of the colon. He does not neglect either to urge, especially in the case of young girls, the importance of having a regular hour every day for attending to the bowels. His article on the treatment of peritonitis is thoroughly up to date, and he brings forward a good deal of evidence to show that the operative treatment is on the whole most likely to be of benefit. The *pièce de résistance*, his article on pulmonary tuberculosis, having been for many years physician to Brompton Hospital, we are not surprised to find that he has devoted one hundred and thirty-one pages to the treatment of this disease.

In his chapter on the prevention of the disease, he sets forth very clearly the necessity for the disinfection or the destruction of the sputum of phthisical patients. He considers that the exposure of tubercle bacilli to boiling

water for cleanliness is the most effective method of destroying them. The risk of infection by the dust of dried sputum may be provided against to some extent by warning the patients not to spit on the floor either in the house or in street cars, etc. He recommends Japanese paper handkerchiefs, which afterwards can be burned. He is also greatly in favor of the sanitary cuspidor, which we have already noticed in this Journal. There are also five chapters on the general medical treatment of phthisis, on the symptomatic treatment, on the treatment of complications, and the surgical treatment of phthisis cavities. Chapter Five treats of the regimenal treatment, and Chapter Six, climatic treatment. In his article on the medical treatment of acute rheumatism and speaking of rheumatic endocarditis, he is very severe on the dry diet recommended by our esteemed *confrère*, Professor James Stewart of Montreal. He says, "to attempt to feed a patient suffering from acute rheumatism, who is sweating profusely and passing dense high-colored urine, with a dry diet in order to obtain some very problematic lowering of blood pressure, is surely to misapprehend the situation entirely." The index is so arranged that one can find either a disease or the various remedies at a glance. Without exaggeration, we can say in conclusion, that one could hardly read anything affording at the same time so much pleasure and profit as this elegantly written and beautifully printed book by Doctor Burney Yeo.

A TREATISE ON THE SCIENCE AND PRACTICE OF MIDWIFERY. By W. S. Playfair, M.D., F.R.C.P., Professor of Obstetric Medicine in King's College, London; Examiner in Midwifery to the Universities of Cambridge and London, and to the Royal College of Physicians. Sixth American from the eighth English edition. Edited, with additions, by Robert P. Harris, M.D. In one octavo volume of 697 pages, with 217 engravings and 5 plates. Cloth, \$4.00; leather, \$5.00. Philadelphia, Lea Brothers & Co., 1893.

The demand for eight English and six American editions of this standard work in seventeen years testifies to the success with which the author has executed his original purpose. His object "has been to place in the hands of his readers an epitome of the science and practice of midwifery which embodies all recent advances." He has "endeavored to dwell especially on the practical part of the subject, so as to make the work a useful guide in this most anxious and responsible branch of the profession." The present issue is the result of a thorough revision of its predecessor at the hands of the author. It has likewise received the benefit of careful revision by Dr. Robert P. Harris, of Phila-

delphia, whose annotations in this and in previous editions have covered the points wherein American practice differs from that of English obstetricians. The work will continue to be a favorite text-book for students and a trustworthy guide for the practitioner.

Ever since its first appearance it has enjoyed the reputation of being the leading text-book in England on this subject. We had the pleasure seventeen years ago of being intimately acquainted with a young Canadian in London, who had won the gold medal for Obstetrics offered by the University of London. He told us then that he had made "Playfair" his *vade mecum*. We were rather disappointed in former editions at the small attention devoted to puerperal fever. This defect has been fully remedied in the present edition, the chapter on puerperal septicæmia and also the one on symphyseotomy being very complete, with the one exception that the total removal of the septic uterus is not mentioned among the methods of treatment. The great claim which may be made for Playfair is its thoroughness. There is hardly anything connected with midwifery that one cannot find an ample but concise notice of, under its appropriate heading; and the wood-cuts are all useful ones. In fact, there is a total absence of padding either in the cuts or in the text. The veteran American editor, Dr. Harris of Philadelphia, who is recognized all over the world as an authority on symphyseotomy in particular, and as a vigorous writer on obstetrical topics generally, has fully made use of his privilege to make annotations, and to the American reader his notes are a valuable addition to the book. Both the author and American editor show a vast amount of erudition and wonderful familiarity with journal literature, as evidenced by their quoting nearly every important case that has been reported on this topic, while their own opinions are expressed so modestly and yet so decidedly as to deserve our admiration. We do not say that this is the best work extant, but we can truly say that it is one of the most valuable text-books on midwifery that has ever appeared.

THE THROAT AND NOSE AND THEIR DISEASES.

With one hundred and twenty illustrations in color and two hundred and thirty-five engravings designed and executed by the Author. Lennox Brown, F.R.C.S. Eng., Senior Surgeon to the Central London Throat and Ear Hospital, late President British Laryngological Association. Fourth edition. Philadelphia: Lea Bros. & Co.

In this edition the author has introduced all recent information of value, much that was doubtful has been expunged, and the space thus gained has been devoted to further details of the influence of micro-organisms in producing throat diseases. The main feature of this

new edition, however, has been the expansion of that portion of the work which deals with diseases of the nose, for in the condition of the nasal fossæ which constitute the first avenues of the natural breath way is to be found the key to the right understanding and successful treatment of the majority of faucial, pharyngeal and laryngological diseases. One of the things that strikes us more forcibly is the valuable help afforded by the very numerous and exquisitely beautiful lithographic plates drawn from nature and on stone by the author.

The wood-cuts which appear on every page are not less explicit in their teaching. With commendable courtesy the author says in his introductory chapter, that he has quoted largely from the writings of his American confrères in this specialty. No excuse is made for this procedure, because from no quarter have we derived in these later days so many original observations and suggestions of real practical value as from the members of the American Laryngological Association.

In addition to the unusual thorough subject-matter of the work, the mechanical part, as is usual with Messrs. Lea's publications, is of the highest order, it being evident that no expense has been spared to make it one of the best works of its kind, the article on tubercle, syphilis and diphtheria being especially worthy of mention. Although quite complete enough for the use of specialists, it is at the same time so clear as to be of daily value to the general practitioner, who will find at the end of the volume a number of well tried formulas most in vogue at the London hospitals for diseases of the throat. The book may be obtained through Mr. Renouf, book-seller, Montreal, or directly from the publishers.

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A MANUAL FOR BOARDS OF HEALTH AND HEALTH OFFICERS.—By Lewis Balch, M.D., Ph.D., Secretary State Board of Health of New York; Health Officer of Albany; Emeritus Professor of Anatomy; and Professor of Medical Jurisprudence, Albany Medical College.

The Secretary of the State Board of Health, Dr. Lewis Balch, has prepared a Manual for the use of members of local Boards of Health, Health Officers and all others interested in health matters. The book is exactly what it purports to be, a practical working manual. It defines the powers of the State and Local Boards, it contains direction to the Local Health Officer, it gives examples of problems which may arise and their solution, it offers suggestions for the prevention of disease, and it includes directions to be followed in times of danger from epidemics of contagious diseases. Price \$1.50, delivered upon receipt of price. Banks & Brothers, Albany, N.Y.

A DICTIONARY OF MEDICAL SCIENCE. Containing a full explanation of the various subjects and terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Pathology, Surgery, Bacteriology, Ophthalmology, Otology, Laryngology, Dermatology, Gynecology, Obstetrics, Pediatrics, Medical Jurisprudence and Dentistry, etc., etc. By Robley Dunglison, M.D., LL.D., late Professor of Institutes of Medicine in the Jefferson Medical College of Philadelphia. Edited by Richard J. Dunglison, A.M., M.D. New (21st) edition, thoroughly revised, greatly enlarged and improved, with the Pronunciation, Accentuation and Derivation of the Terms. In one magnificent imperial octavo volume of 1181 pages. Cloth, \$7.00; leather, \$8.00. Philadelphia: Lea Brothers & Co., 1893.

This has been for the past sixty years the favorite Medical dictionary on this continent, the fact that it has gone through twenty-one editions during that period being sufficient proof of its popularity. As the science of Medicine has progressed, hundreds and thousands of changes have been made, but in this edition these changes have reached the great number of forty-four thousand new words and phrases. Although the page has been enlarged, this volume contains one hundred more pages than its predecessor.

Dr. Richard J. Dunglison enjoys a wide reputation as a medical writer, and no one more fitted could have been found to revise the work of his talented father. Some minor faults have been found in the work, such as the printing of the Greek roots in English letters; this, however, has probably been intentional, in order to adapt the work to the use of the unfortunately very large class of practitioners who are unacquainted with the Greek language. There are also a few mistakes in pronunciation, but these are so few in comparison with the many thousands of correct ones that they may be easily ignored. The derivations and explanatory definitions for which this work has long been celebrated are thoroughly given.

Under diseases we find their symptoms and treatment; under drugs, their properties and doses; under poisoning, their symptoms, antidotes and treatment.

Very complete tables furnish a vast amount of information which cannot be otherwise obtained. One cannot even glance over the work without uttering an expression of admiration for the indomitable energy of the author and reviser. We have tested several words, and have been very much struck with the completeness with which the subjects are handled. For instance, taking the word liver, in the space of three-quarters of a page we have the anatomy,

physiology and pathology of the organ, including a table of dimensions and weights of the liver and its component parts. A dictionary is of necessity a difficult work to review, but we can only say that it has long been recognized as the standard work of its kind on this continent, and that no medical library can be said to be complete without it.

CHEMISTRY AND PHYSICS. By Joseph Struthers, Ph. B., Columbia College School of Mines, N.Y.; D. W. Ward, Ph. B., Columbia College School of Mines, N.Y.; and Charles H. Willmarth, M. S., N. Y. \$1.00. (The Students' Quiz Series.) Philadelphia, Lea Brothers & Co., 1893.

This new series of manuals for students of medicine is rapidly approaching completion. The volume on Chemistry and Physics is the twelfth to appear, and the thirteenth and final volume, that on Surgery, will shortly follow. This series is written by well-known New York teachers and specialists, and it enjoys the advantages of issue under competent editorship. The volume on Chemistry and Physics, like its companions, deals with those facts of its sciences which are requisite to a thorough medical education. The various matters are presented tersely and pointedly in the form of questions, which are answered with equal clearness. The book is well illustrated. Teachers as well as students will gain much advantage from the use of these manuals—in fact, their value far exceeds their modest price, which is rendered possible only by a large sale.

When one looks through this small work, it is astonishing to see how much information on Chemistry and Physics have been compressed into it. For students preparing for examinations, and even for teachers, reviewing this small work saves a large amount of time.

NEW ILLUSTRATED DICTIONARY OF MEDICINE, BIOLOGY, AND COLLATERAL SCIENCES.

DR. GEORGE M. GOULD, already well known as the editor of two small medical dictionaries, has now about ready an unabridged, exhaustive work of the same class, upon which he and a corps of able assistants have been uninterruptedly engaged for several years.

The feature that will attract immediate attention is the large number of fine illustrations that have been included, many of which—as, for instance, the series of over fifty of the bacteria—have been drawn and engraved especially for the work. Every scientific-minded physician will also be glad to have defined several thousand commonly used terms in biology, chemistry, etc.

The chief point, however, upon which the editor relies for the success of his book is the unique epitomization of old and new know

ledge. It contains a far larger number of words than any other one-volume medical lexicon. It is a new book, not a revision of the older volume; pronunciation, etymology, definition, illustration, and logical groupings of each word are given. There has never been such a gathering of new words from the living literature of the day. It is especially rich in tabular matter, a method of presentation that focuses, as it were, a whole subject so as to be understood at a glance.

The latest method of spelling certain terms, as adopted by various scientific bodies and authorities, have all been included, as well as those words classed as obsolete by some editors, but still used largely in the literature of to-day, and the omission of which in any work aiming to be complete would make it unreliable as an exhaustive work of reference.

The publishers announce that, notwithstanding the large outlay necessary to its production on such an elaborate plan, the price will be no higher than that of the usual medical text-book.—P. BLAKISTON, SON & CO.

THE THEORY AND PRACTICE OF MEDICINE PREPARED FOR STUDENTS AND PRACTITIONERS. By James T. Whittaker, M.D., LL.D., Professor of the Theory and Practice of Medicine in the Medical College of Ohio; Lecturer on Clinical Medicine at the Good Samaritan Hospital; Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicians, of the American Academy of Medicine, and of the American Medical Association. With a chromo lithographic plate and three hundred engravings. Octavo, 840 pages. Extra muslin, price, \$5.75; leather, price, \$6.50. New York: William Wood & Company.

The author of this book is of wide reputation and recognized ability, and possesses an experience admirably suited to the production of such a work as this. All the more recent advances in diagnoses and in therapeutics will here be found. The practitioner who looks up from the signs and lesions to the cause will entertain more hopes of treatment.

Part I. is devoted to general diseases, such as infections and parasites.

Part II. to diseases of organs, including digestion, respiration, circulation, genito-urinary system, and nervous system. It is unusual to find in such works so many as three hundred illustrations which this book contains, and which adds so much to the interest of the reader. Its general excellence is beyond our power to criticize. Its size, clear type, good paper and above all the conciseness of the

author's descriptions, render it an excellent text-book for the use of both students and practitioners.

MINOR SURGERY AND BANDAGING.—Including the Treatment of Fractures and Dislocations. Tracheotomy, Intubation of the Larynx, Ligations of Arteries and Amputations. By Henry R. Wharton, M.D., Demonstrator of Surgery, and Lecturer on Surgical Diseases of Children in the University of Pennsylvania. Second edition thoroughly revised and enlarged. With four hundred and sixteen illustrations. Philadelphia, Lea Brothers & Co., 1893.

Although the author only claims this to be a book on minor surgery, it is really much more than that, as it includes nearly 100 pages on fractures, 30 pages on dislocations, 40 pages on the ligation of arteries, and 50 pages on amputations. The illustrations are nearly all photo-engravings while the woodcuts are of the highest order. There is nothing for us to criticize, the descriptions of the preparations of ligatures, sutures, etc., being according to the most recent methods. We cannot speak too highly of the excellence of the mechanical part of the work, which comprises in all a little over 500 pages. Although probably intended for the student, it contains so much recent information on aseptic operating and dressing which is not yet otherwise accessible in book form, that this little volume would be especially useful to the country practitioner who has a taste for surgery.

OUTLINES OF PRACTICAL HYGIENE—The Art of Preserving Health by Preventing Disease. Adapted to American conditions. By C. Gilman Currier, M.D., Visiting Physician to the New York City Hospitals; Fellow of the New York Academy of Medicine; Member of the New York Pathological Society; Member of the American Medical Association, etc., etc.

CONTENTS FROM CHAPTER HEADINGS.—Soil—Climate—Protection of Body—Clothing—Bathing—Personal Hygiene—Physical Exercises—Schools—Occupations—Their Influence on Health—Heating—Lighting—Buildings—Ventilation—Diet—Foods—Their Preparation and Adaptation—Water and Water Supplies—Fluid Waste—Sewers—Drainage—Plumbing—Garbage and Other Refuse—Disposal of the Dead—Human Excreta, Disposal of—Bacteria and Diseases—Infectious Diseases—Disinfection—Restriction—Communicable Diseases. One large octavo volume, 468 pages, illustrated, \$2.75.

A NEW MEDICAL DICTIONARY.—A completely new Medical Dictionary is announced for early publication by Lea Brothers & Co. The author, Dr. Alexander Duane, of New York, is already widely known as the medical expert for Webster's International Dictionary. His new work has been drafted to supply medical students with all desired information concerning the words they will meet in their course of reading; and as the vocabulary has been selected most liberally, the work will be of value to practitioners also. The pronunciation of each word is given by a simple and obvious phonetic spelling; then follows the derivation, an unexcelled aid to memory, and finally a full definition. Descriptive matter has been appended to such words as cannot be adequately explained by simple definition. Thus, diseases are described, and their symptoms and treatment are given; drugs are followed by their properties, effects, doses, etc. Extensive tables of bacteria, doses, etc., are placed in the alphabet most conveniently for reference. A work of real value is promised, and we shall take an early opportunity of reviewing it in these columns.

AMERICAN TEXT-BOOK OF GYNÆCOLOGY.—Mr. W. B. Saunders, Publisher, of Philadelphia, Pa., announces this work as ready for early issue. It is the joint work of Drs. Howard, Kelley, Pryor, Byford, Baldy, Tuttle, and others who stand before the profession for all that is progressive in gynecology. The work will contain operations not before described in any other book, notably ablation of fibroid uterus. It is designed as a profusely illustrated reference book for the practitioner, and every practical detail of treatment is precisely stated.

ESSENTIALS OF MINOR SURGERY, BANDAGING AND VENEREAL DISEASES. Arranged in the form of Questions and Answers. Prepared especially for Students of Medicine. By Edward Martin, A.M., M.D., Clinical Professor of Genito-Urinary Diseases, Instructor in Operative Surgery, and Lecturer on Minor Surgery, University of Pennsylvania. Second edition, revised and enlarged. 78 illustrations. Philadelphia: W. B. Saunders, 925 Walnut Street, 1893.

This is a useful little volume of 163 pages arranged in the form of questions and answers, and while in no sense taking the place of larger works, will be found handy for students reviewing their work.

HERNIA: PALLIATIVE AND RADICAL TREATMENT IN ADULTS, CHILDREN AND INFANTS.

—By Thomas H. Mar'ey, A.M., M.D., Visiting Surgeon to Harlem Hospital, Consulting Surgeon to Fordham Hospital; Philadelphia, Pa. The Medical Press Co., Limited, 1725 Arch street, 1893.

Although this little work of 277 pages is hardly up to the usual standard as regards paper, printing and engravings, yet it contains a vast amount of information concerning Hernia in a comparatively condensed form. His chapter on the Argen progress and present position of the radical cure is very good, as is also his description of Bassini's method. The three woodcuts illustrating it are also very good. We are surprised to find the author taking a decided position against the operation. The author is well up in the literature of the subject, the book being plentifully supplied with references to the book and journal literature.

PAMPHLETS RECEIVED.

DIET IN ITS RELATION TO THE TREATMENT AND PREVENTION OF DISEASE. Read before the Section of Physiology and Dietetics at the Forty-third Annual Meeting of the American Medical Association, held at Detroit, Mich., June, 1892, by Augustus P. Clarke, A.M., M.D., of Cambridge, Mass., U.S.A. President of the Gynæcological Society of Boston; Vice-President of the Pan-American Medical Congress, Washington, 1893.

POST-PARTUM HEMORRHAGE: ITS ETIOLOGY AND MANAGEMENT, by Augustus P. Clarke, A.M., M.D., of Cambridge, Mass., U. S. A.

ORIGIN AND DEVELOPMENT OF MODERN GYNÆCOLOGY, by Augustus P. Clarke, A.M., M.D., of Cambridge, Mass., U. S. A.

ADDRESS ON HYGIENE.—Delivered by Prof. Samuel G. Dixon, M.D., at the meeting of the State Medical Society, Williamsport, Pa.

REPORT OF A CASE OF APPENDICITIS. By Dr. Mordecai Price, Philadelphia.

A CONSIDERATION OF SOME OF THE OPERATIVE MEASURES EMPLOYED IN GYNÆCOLOGY, by Augustus P. Clarke, A.M., M.D., of Cambridge, Mass., U.S.A.

HYGIÈNE DE L'ENFANCE ET DE L'ADOLESCENCE. Ouvrage honoré d'une Médaille d'argent de l'Académie de Médecine (Comm. d'Hygiène de l'Enfance) : Le Premier Age et La Seconde Enfance, par le Dr. E. Verrier, ancien préparateur à la Faculté de Médecine, Lauréat de l'Académie de Médecine (prix Capuron), Officier de l'Instruction Publique. Troisième Edition, Paris, Société d'Editions Scientifiques, Place de l'Ecole de Médecine, 4, Rue Antoine-Dubois, 1893.

NOURRICES SUR LIEU, CONSEILS AUX JEUNES MÈRES. Par le Dr. Henry Drouet, Ancien Interne des Hôpitaux de Paris et de la Maternité de l'Hôpital Beaujon, Lauréat de la Faculté de Médecine, Lauréat de l'Académie de Médecine (Prix de l'HYGIÈNE DE L'ENFANCE), Ancien Médecin Inspecteur des Enfants du premier âge, etc. Paris, Société d'Editions Scientifiques, Place de l'Ecole de Médecine, 4, Rue Antoine-Dubois, 1893. Tous droits réservés.

ETUDE SUR LE DERMOPHISME OU DERMONEUROSE TOXIVASOMOTRICE. Par Tous-saint Barthélemy, Médecin nommé au Concours de Saint Lazare. Ancien Chef de Clinique de la Faculté de Paris à l'Hôpital Saint Louis, etc. Avec 17 planches. Paris, Société d'Editions Scientifiques, Place de l'Ecole de Médecine, 4, Rue Antoine-Dubois, 1893.

GUIDE PRATIQUE POUR LA PRÉPARATION ET L'INJECTION DES LIQUIDES ORGANIQUES (Méthode Brown-Séguard), par le Dr. H. Melville. Paris, Société d'Editions Scientifiques, Place de l'Ecole de Médecine, 4, Rue Antoine-Dubois, 1893.

THE INFLUENCE OF DRESS IN PRODUCING THE PHYSICAL DECADENCE OF AMERICAN WOMEN. [Annual Address upon Obstetrics and Gynæcology.] By J. H. Kellogg, M.D., Fellow British Gynæcological Society, and the American Association of Obstetricians and Gynæcologists, Member Société d'Hygiène of France, American Medical Association, British and American Associations for the Advancement of Science, American Climatological Society, etc. Battle Creek, Michigan. Reprinted from Transactions of Michigan State Medical Society, 1891.

THE ADVANTAGES OF VERSION IN A CERTAIN CLASS OF OBSTETRIC CASES, by Augustus P. Clarke, A.M., M.D., Fellow of the American Association of Obstetricians and Gynæcologists, Cambridge, Mass. Reprinted from The American Journal of Obstetrics. Vol. XXVI, No. 5, 1892. New York, William Wood & Company, Publishers, 1892.

DES MEILLEURS MOYENS D'ANESTHÉSIE À EMPLOYER EN ART DENTAIRE, par le Docteur E. Sauvez, de la Faculté de Paris, Ancien Externe des Hôpitaux, Professeur Suppléant à l'Ecole Dentaire de Paris, Membre de la Société de Stomatologie. Paris: Société d'Editions Scientifiques, Place de l'Ecole de Médecine, 4 rue Antoine-Dubois, 4; 1893.

THE NATURE OF SHOCK, by Eugene Boise, M.D. Gynæcologist to St. Mark's Hospital, Fellow of the American Association of Obstetricians and Gynæcologists, Grand Rapids, Mich. New York, Stuyvesant Press, 154 and 156 West Twenty-Seventh Street, 1893.

OBSERVATIONS ON A CASE OF RECURRENT AMEBIC DYSENTERY WITH SUCCESSIVE LARGE HEPATIC ABSCESSES.—by John Winters Brannan, M.D., Assistant Pathologist to St. Francis Hospital, New-York. Reprinted from the New York Medical Journal for March 25, 1893. New York, D. Appleton & Company, 1893.

PUBLISHERS' DEPARTMENT.

WILLIAM R. WARNER & CO. GIVEN THE HIGHEST COLUMBIAN AWARD.—W. R. Warner & Co., of Philadelphia, have obtained the highest prize for the purity and perfection of their medicinal and officinal standard pharmaceutical and chemical products. This extensive firm have obtained hitherto twelve grand World's Fair prizes, and they must feel deservedly proud of the Columbian award, which is the highest of its class.

WILSON SAFFIN, M.D., of Carthage, Ohio, writes:—"I often use Antikamnia and Dover's Powder combined, and the combination acts so nicely I have often thought of the advisability of a tablet containing 2½ gr. each of Antikamnia and Dover's Powder combined. The Dover's Powder seems to act harmoniously, and favors the action of Antikamnia. I have used your Antikamnia for more than 2 years, both in my hospital and private practice, and have always found same eminently satisfactory."

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Original Communications.

UNUNITED FRACTURE.

By LLEWELLYN ELIOT, A.M., M.D., *President of the Medical Association of the District of Columbia, Surgeon to the Eastern Dispensary, Consultant to St. Ann's Infant Asylum, etc., Washington, D. C.**

It is with much hesitation I appear before such an august and critical assemblage of surgeons as are gathered here, for I feel nothing I may say will appear new to the majority of you.

The subject—Ununited Fracture, Delayed Union, Pseudarthrosis—has received attention at the hands of writers on Surgery from the earliest time, and engaged the attention of the best and ablest surgeons. To follow its literature would be an almost endless task, and to

review, in detail, the various methods of treatment would occupy much more time than I desire to consume. According to writers on Surgery, firm union between the fractured ends of a bone may sometimes be delayed beyond five or six weeks, the period of time usually required for their repair. This condition constitutes what is termed non-union, ununited fracture or pseudarthrosis. This delayed firm union may be temporary or permanent, it may correct itself or it may require the intervention of the surgeon. The character of the union in these cases is of a fibrous or ligamentous nature, or is a proliferation of brittle callus.

The causes of this non-union are divided into two classes,—those of a constitutional character and those of a local character. Among the constitutional are hæmorrhage, scorbutus, diarrhœal diseases, excessive lactation, pregnancy, shock, any state of the system attended by a diminution of the vitality of the patient. The reparative

*Read at the Section of Surgery, First Pan-American Medical Congress, Washington, D C., September, 1893.

process itself may be at fault, since the callus thrown out about the fractured ends may be so proliferative that it softens and dissolves before it has performed its part in the repair, or it may become so brittle as to be useless. Old age, cancer, paralysis, rheumatism and syphilis are passive and *not* active constitutional causes, although the contrary is strongly asserted. As local causes we enumerate: the interposition of a foreign body between the ends, such as a piece of muscle, tendon or clothing, the destruction of the blood supply of the bone, improper adjustment of fragments, defectively applied fixation apparatus, where the fragments are not held in a proper position, but are movable. More cases occur in hospital practice than formerly, as the hospital internes are allowed greater liberty in the treatment of fractures to-day than they were accorded some years ago.

There should be no difficulty in the diagnosis of cases of non-union after fractures. The condition, as a rule, is apparent.

The treatment of cases of ununited fracture must be in accord with the cause of the delay. Iron for the anæmic, iodide of potash and the salicylates for the rheumatic, mercury for the syphilitic constitute our remedies for those cases which depend upon some fault of the system. But even with this course, many patients become tired and discouraged at the delay, and demand that more active measures be adopted. It is then that rubbing the ends together, injections of irritants, introduction of setons, caustics and pins, resection of the ends of the bone, bone grafting, wiring, and finally amputation of the member must be considered. One or more of these methods may be adopted; of course it is to be understood, any faulty position must be corrected. The history of these various procedures is entirely out of place in a practical paper, and then, again, you are all familiar with them. The best method, so

far as my limited experience goes to show, is that of resection, resection with wiring of the freshened ends of the bone. After the operation I encourage free suppuration, believing the bone which results will be firmer and more permanent, since, as Wyeth has written: "If the broken ends do not come in contact with the air—that is, if the fracture is not *compound*—the process of repair in bone after an injury is similar to the physiological process of development of this tissue—name'y, the embryonic tissue is developed into cartilage-cells, and these, undergoing proliferation, develop into a secondary embryonic tissue, which is formed directly into bone. If, however air is admitted to a wound in bone, the process of ossification in the embryonic tissue is more rapid and direct, since the intermediate stage of cartilage-cell formation does not occur."

Repair begins in adult subjects generally about the tenth day, the callus is solid from the fifteenth to the thirtieth days, and is absorbed by the sixtieth day.

I have seen four cases of ununited fracture during the last twenty years; in two success followed resecting the ends and wiring, one died from shock following amputation of the thigh, and the fourth would not consent to any operative treatment, and has a perfect pseudarthrosis of the lower third of the thigh, without disability, but a shortening of about two inches.

CASE I. B. S. P.—White, adult. Was first seen and treated for secondary syphilis. Further examination revealed the presence of a pseudarthrosis of the right humerus at the upper third, of several years duration. The arm was perfectly useless to him, hanging flail-like by his side, so when an operation, looking to its improvement, was proposed to him, it was gladly accepted. Under a mixed anæsthesia of chloroform and ether, an incision three inches long was made along the outer aspect of the arm, the bone exposed, and the ends found to

be bound together with strong fibrous bands. The fracture had been oblique, the lower end was resting high up on the latter and on the inner side. Dividing the ligamentous bands, the periosteum was pushed out of the way and the ends of the bone freshened, about half-an-inch being taken from each end. The freshened ends were pierced with strong silver wire, and tied tightly, the ends of the bone having been brought into exact apposition and the periosteum drawn down. The wound was allowed to heal by granulation. In four weeks the bone was united, and in six months he was dismissed from treatment. At the expiration of two years, the wires had worked their way to the surface and were removed, the arm at that time being strong and of equal size as the other.

CASE 2. W. H. R.—White, adult. Sustained a double fracture (simple) of the right femur. After months of treatment, he came under the care of one of the most distinguished surgeons of the District of Columbia, in a frightfully debilitated condition. A fracture just about the junction of the middle and lower thirds, and another nearly midway of the lower third, allowed the intervening fragment to remain loose. After consultation, wiring was considered, but the lower end of the bone was so unhealthy that amputation was done at the upper third.

Case 3. P. M.—White, aged 25 years, blacksmith, of good muscular development. History of syphilis contracted about two years previously, at which time he was circumcised under cocaine anæsthesia. Was treated at irregular intervals with the protiodide of mercury, stopping treatment when the eruption had become dried. Has been a very hard drinker of whiskey for the past twelve years. On May 28th, 1892, while under the influence of alcohol, he boarded the engine of an express train; after riding a few blocks, about a quarter of a mile, he jumped off,

thereby sustaining a comminuted fracture of the right tibia and fibula. He was carried to hospital in the police patrol. After being made comfortable for the night, the next morning an extension apparatus with weights was applied and retained on the leg for twelve days, when a plaster of Paris bandage was substituted, the weight extension being continued. This bandage was allowed to remain on the limb for one month, when it was removed and another applied. At the end of six weeks he was allowed to get out of bed and walk about the ward on crutches. On July 26th the plaster bandage was removed, and he was discharged as cured. During his stay in hospital he was treated for syphilis with iodide of potassium. He now came under my care; was impatient, and wanted something done for him. After attempting to set up an inflammation by rubbing the fragments together, I determined upon resection and wiring. Having been given a soap bath and his leg shaved, this was done on August 5th, at half-past-six in the morning, Drs. T. M. Vincent, J. V. Carraher and R. A. Neale assisting. The anæsthesia was begun with chloroform, but as he took it so badly, ether was substituted. An incision extending downwards from the promontory of the tibia to very near the end of the bone was made; this was supplemented by a T incision over the seat of non-union, the bones separated from their muscular attachments, and the following condition found: a fracture at the middle of the tibia, united; a fracture half an inch below this, united; a long fracture starting from the internal angle of this last fracture and extending down at an angle of about 75°, united by fibre; in the lower fragment the bone had been split for an inch. The fibula had been shattered, but had united in all its fragments with much shortening. Each fragment of the ununited portions of the tibia was resected obliquely, an inch-

and-a-half of bone being removed; with a jeweller's drill each freshened end was perforated in two places and wire passed through the perforations, drawing the ends together, the wires were twisted, the ends pressed well down upon the bone and the periosteum drawn over them. Eleven sutures were required to close the wound, a drainage tube introduced at the angle of the wound and an iodoform dressing applied. The leg was then placed in a fracture box with bran supports. Given morphia sulphate gr. $\frac{1}{4}$. Reaction from the anæsthesia good. 7 p.m., temp. $101\frac{1}{2}^{\circ}$; pulse 120. Has vomited several times; has not eaten anything; given whiskey at intervals; pain along tibial nerve severe; morphia sulphate gr. $\frac{1}{4}$ every two hours if necessary.

August 6th, 10.15 a.m., temp. $100\frac{1}{2}^{\circ}$; pulse 96; slept very little during the night, as muscular contractions were very painful and annoying; morphia sulphate gr. $\frac{1}{4}$ as necessary.

August 7th, 11 a.m., temp. $100\frac{1}{2}^{\circ}$; pulse 96; slept during the night; feels comfortable; wound is discharging at angle over the wires, other parts look well; washed with a solution of carbolic acid and dressed with iodoform.

August 8th, 7.30 p. m., temp. $102\frac{1}{2}^{\circ}$; pulse 120; wound at angle is discharging very freely around and through drainage tube; tube taken out, wound washed with carbolized water and dressed with iodoform; given bromide of potassium and chloral hydrate; muscular contractions not so severe; has eaten nothing since the operation; milk punch continued.

August 9th, 12 m., temp. $100\frac{1}{2}^{\circ}$; pulse 112; feels comfortable; has eaten chicken broth and toasted bread; wound discharging freely.

August 10th, 11 a. m., temp. 100° ; pulse 100; suppuration free; has pain and jerking in leg; dressed with carbolized water and iodoform.

August 11th, 12 m., temp. $99\ 2\text{--}5^{\circ}$; pulse 96; suture at angle taken out to allow freer drainage; iodoform dressing; bathing changed; morphia sulphate and chloral hydrate as necessary.

August 12th, 11 a. m., temp. $100\ 1\text{--}5^{\circ}$; pulse 112; delirious during the night, attempted to get out of bed; suppuration free; took out sutures, wound at upper portion healing, leaving the T incision open, felt bones of leg jump; su'phate of magnesia.

August 13th, 12 m., temp. $100\ 1\text{--}5^{\circ}$; pulse 112; slight pains in leg.

August 14th, 11.15 a.m., temp. $99\ 3\text{--}5^{\circ}$; pulse 96; feels comfortable; felt bones jump during the night, pads changed, suppuration free.

August 16th, 10 a. m., temp. $99\ 4\text{--}5^{\circ}$; pulse 90; feels well, except little sickness at stomach; bones give him the sensation he had when they were uniting, dressed with carbolized water and iodoform; laxative.

August 18th, a. m., temp. $98\ 4\text{--}5^{\circ}$; pulse 88; has malarial symptoms. R. quinine sulphate gr. ii every three hours.

August 22nd, temp. $98\ 3\text{--}5^{\circ}$; pulse 88; bones uniting.

August, 24th temp. $99\ 3\text{--}5^{\circ}$; pulse 90; doing well, bedding changed.

September 12th, abscess at upper extremity of incision incised, and a large amount of clean, healthy pus evacuated.

September 18th; doing well, no discharge, wound healed, wires cannot be felt.

September 26th; put on posterior tin splint with foot piece, allowed to get out of bed and go about his room on crutches.

October 9th; dressing removed, tin splint re-applied with silicate of potash bandage; allowed to go about at will on crutches.

October 20th; new silicate of potash bandage applied, can lift leg without pain or strain when no bandage is on it. In

January went to work at horse-shoeing, wound up with a heavy sprce and hard fight, was thrown down and dragged about the room, felt no bad effects in the leg, union perfect.

February 16th; leg still doing well wears the last banlage. Has secondary syphilitic symptoms; given hydrarg. protiodide gr. $\frac{1}{4}$ every four hours.

February 26th; bubo incised; continue pills.

July 4th; bandage taken off, wires still in the bones, leg perfectly strong, can do as good a day's work at horse-shoeing as before injury. He wears a shoe that prevents any limping.

Cases 1 and 3 prove to me syphilis is not a cause of non-union, and that the bony union following free suppuration is stronger and more permanent than that following the closed method of treating these cases.

THE PROPHYLAXIS AND TREATMENT OF PUERPERAL ECLAMPSIA.

By GEORGE T. MCKEOUGH, M.D., M.R.C.S. Eng., L.R.C.P. Edin., F.O.S. Lond., Chatham, Ont.*

In selecting the subject of Puerperal Albuminuria and Eclampsia for a short paper before this Society, I scarcely think any apology necessary, as no subject can have greater interest or be of more supreme importance to the obstetric physician.

The suddenness, frequently of its onset, its grave character, the conflicting opinions still held both as regards the pathology and the treatment of the complication, render it a subject peculiarly fit for a profitable and instructive interchange of opinions.

First, regarding the prophylactic treatment of eclampsia. In many cases, unfortunately, we have not an opportunity to advise or adopt any preventive measures,

as we may find our patient in convulsions at our first visit, the attack occurring unexpectedly and without warning. This, however, is not always the case, and we are either consulted by a pregnant woman in reference to symptoms which suggest an examination of her urine, or we are simply informed our patient is *enccinte*, and the management of her case left in our hands. Frequent examinations of her urine should thus become imperative, especially should this be attended to in primipara, as seven-eighths of the cases of eclampsia occur in first pregnancy. (Goldberg, *British Med. Journal*, July, 1892.)

Observers differ as to the percentage of albuminous urine in pregnant women. Galabin, at Guy's Hospital Charity, found only 2 p. c. with the ordinary tests of heat and nitric acid; on the other hand, some French observers have found from 14 to 20 p. c. In these last observations the amount discovered in most cases was very small, and only with very delicate tests, and was possibly due in some instances to cystitis or gonorrhœa. From my own observations, however, among French Canadian women, I believe they are more susceptible to this complication than women of other races.

The conditions, however, that produce albuminuria during pregnancy may not in every instance induce eclampsia, and some pregnant and parturient women may have albumen in their urine without having convulsions. Still, if albumen be found in any quantity, and persists, the patient cannot be too carefully watched and instructed.

The diet should be strictly regulated; if the patient can be persuaded to limit it to milk or buttermilk, it will be advisable to do so; otherwise, barley water, oatmeal gruel, arrowroot, chicken broth, etc., may be allowed. The patient should be warmly clothed, and especially warned to avoid chills and draughts. In my own

* Read before the Canadian Medical Association, London, Ont., Sept. 21st, 1893.

practice convulsions occurred in one case, and grave nervous prodromata in another, after taking a cold bath—in neither case were there any symptoms previous to the bath sufficiently alarming to cause the patient to consult a physician. The emunctories, especially the bowels and skin, should be fully acted upon. For the bowels, Rochelle or Epsom salts, Pulv. Jalapae Co., Bicarb of Potash or Elaterium, are deservedly favorite laxatives. The kidneys can be flushed as well with pure water, or some of the innumerable mineral waters, as with other more powerful diuretics. For the skin there is no other remedy probably as good as the warm bath so highly recommended by the German obstetricians. When possible and convenient, the following method, described by Dr. Earle of Chicago (*Amer. Jour. Obst.*, Vol. 22, 1889, page 853), and known as the Vienna method, is excellent:

"The patient is placed in a bath tub filled with water slightly above 99°F. The tub is covered with a heavy blanket, leaving the face free, and the temperature of the water gradually elevated to 110°F. or 112°F. The patient remains in the bath tub from 20 to 30 minutes. A towel wrung out of ice water and placed upon the head relieves any distressing cephalic sensation. While in the bath, the patient drinks large quantities of water. Upon emerging from the bath she is covered with a warm sheet and enveloped in an upper and lower layer of thick blankets, so that only the face is exposed. Within a very few minutes free perspiration is observed. The sweating is continued for two or three hours, according to the gravity of the case; the bath may be repeated once daily for an indefinite period."

When it is not possible to carry out this plan of inducing sweating, the ordinary hot vapor bath can always be extemporized, and answers very well.

If, notwithstanding these efforts carefully

and assiduously carried out, the quantity of albumen remains large, persists or increases in quantity, the proportion of urea diminishes with or without œdema, with or without nervous symptoms, the induction of premature labor should unhesitatingly be resorted to, especially if the pregnancy has advanced to or beyond the seventh month. The cause of the albuminuria is undoubtedly the pregnancy,—by ending the cause, the effect is soon relieved.

In the practice of my partner, Dr. Holmes, and myself, we have induced labor in nine (9) cases of albuminuria of pregnancy, after first adopting the means related without amelioration of threatening symptoms; in all cases the child was born alive and the mothers made good recoveries.

Labor was induced by means of an aseptic gum elastic catheter usually prostatic on account of its length, gently inserted between the membranes and uterine walls posteriorly, well up to the fundus; uterine contractions will be accelerated and labor terminated much more speedily by the injection of glycerine.

When pains become established, labor may be hastened by rupturing the membranes. If convulsions seem imminent, dilatation of the cervix may be assisted by the fingers or Barne's bags.

About an hour previous to the introduction of the catheter a full dose of chloral is usually administered for the joint purpose of relaxing the os uteri and allaying nervous irritation. The patient is afterwards carefully watched, and if headache is complained of, or other nervous symptoms observed, chloral or chloroform is administered.

But despite preventive measures, eclampsia may occur, or, what more frequently happens, the first introduction to the patient finds her in convulsions.

In treating eclampsia, three important factors in its etiology should be remem-

bered. The first is the exalted nervous and vascular tension peculiar to pregnancy; the second is that some noxious material, whether the result of a kidney lesion or the toxin product of some pathogenic microbe, or some other cause, as yet to be demonstrated, is retained and circulates in the blood. Dr. Anvard expresses it aptly when he says that eclampsia is the result of a strike on the part of the organs of elimination; the third is the ultimate cause of the complication,—the presence of the child in utero. The therapeutics of eclampsia are therefore reduced to the following indications: sedation, elimination, and the evacuation of the uterus. The patient should be quieted as soon as possible. Have the light in the room subdued, the surroundings calm, take the precaution to protect the woman's tongue by inserting a soft gag, or have one ready for immediate use. Then put her immediately under the influence of chloroform. This should be done before any attempt is made to draw off the urine, to introduce the finger into the vagina, or to administer any medicine, as the slightest irritation in the highly sensitive condition of the nervous system may precipitate another convulsion.

Besides quieting the patient and allaying the fears of excited and anxious friends, you have, while administering the anæsthetic, a few moments for quiet reflection, which in the face of probably an unexpected exigency may be desirable. Small quantities of chloroform usually suffice to produce the desired effect and ward off the threatening fit.

As soon as the patient is resting comfortably, the sedative action of the chloroform should be assisted and maintained by chloral or morphine; the latter drug is more easily administered and acts more promptly, and obstetric literature during the past few years is replete with favorable reports. Dr. Fry (*Amer. Jour. of*

Obst., Vol. 21, 1888, page 536) says: "In the treatment of puerperal eclampsia we have as palliatives, chloroform, chloral, potassium bromide and morphine. Of these, morphine administered hypodermically is by far the best and most reliable. Dr. Washburn (*Med. News*, Vol. 59, page 29) highly extols the virtues of morphine in all forms of anæmic poisoning. It is unnecessary to mention other favorable experiences with morphine, as most physicians have had more or less experience with it. From my own personal use of the two drugs, morphine in eight cases, chloral in six cases, and morphine and chloral together in six cases, I prefer chloral in most instances. The action of morphine upon the kidneys is disputed, some authorities asserting that it increases the flow of urine. Stephen McKenzie's *Lancet*, vol. 2, 1891, page 209, reports a case of chronic uræmia, in which morphine not only relieved the distressing symptoms but largely increased the flow of urine. Others again believe that it usually diminishes the flow. But whatever its action on the kidneys, morphine certainly constipates the bowels and interferes with the rapid action of the hydrogogue cathartic, which is highly essential in the successful treatment of most cases of eclampsia. If morphine is preferred for any reason, do not make the mistake that I unfortunately did once some years ago, of injecting a dissolved triturate of morphine and atropine. The atropine, by reason of its action on the skin, is contra-indicated. If the patient is comatose or unable to swallow, the chloral may be given by enema, or by inserting a long soft rubber catheter or tube through the nose or mouth into the œsophagus, and injecting it through the catheter into the stomach, using due care to see that the tube is some distance into the œsophagus, and have the patient slightly elevated.

The sedatives having been administered, our attention should now be directed to

elimination. This is equally important as the first indication of treatment. The bowels should be freely, very freely, moved; this is not only the best portal for carrying off excrementitious material in the blood, but by bleeding the patient moderately as it were into her own intestines, vascular tension is lowered as well as the excessive action of the heart. Rochelle salts or salicylate of magnesia, on account of their rapid hydragogue action, are most useful. It can be introduced into the stomach, if necessary, in a way similar to the chloral. Besides the bowels, the skin should be made to secrete freely. This can readily be accomplished by abundant covering and artificial heat placed about the body of the patient.

These means can be assisted by the action of pilocarpine, in cases when the coma is not profound, in doses of $\frac{1}{16}$ to $\frac{1}{4}$ hypodermically every two, four or six hours, according to its action on the skin.

The patient quieted, and under the influence of the anæsthetics, the purgative administered, the skin secreting freely, proceed to terminate labor as speedily as possible consistent with safety to mother and child.

Early in the stage of pregnancy, before the cervix is effaced and the os undilatable, a catheter is introduced (as previously referred to). Puncturing the membranes if possible will accelerate labor, and the escape of the liquor amnii is not uncommonly followed by cessation of the convulsions. Dilatation of the os may be expedited by the fingers or Barne's bags, and delivery hastened and completed by the forceps or turning and extraction.

Special care should be taken that all interferences should be done upon strictly aseptic principles.

Efforts must not cease as soon as delivery is accomplished, the patient should still be carefully watched, and all nervous symptoms allayed with chloroform and

chloral. The bowels should still be kept open, and the skin secreting until the kidneys act freely and the albumen markedly diminishes in quantity.

If the procedures thus indicated are persisted in, the physician will be rewarded in most cases by the recovery of his patient. But if, in spite of chloroform, chloral, morphine and elimination the convulsions continue, the question of venesection may arise, and its value is probably one of the most unsettled questions in the treatment of eclampsia. It is one of the oldest remedies, and is still relied upon by many as one of the most efficacious means to control convulsions.

Dr. Swayne of Bristol (*British Med. Jour.*, Sept., '91) gives a record of 36 cases of puerperal eclampsia, in 24 of which bleeding was used, and in 18 it was decidedly beneficial. Barnes says: "It is not wise to make venesection a rule in practice, but the empirical evidence in its favor in appropriate cases is incontestable; nothing so quickly lowers the excessive action of the heart."

Many others publish good results, but the weight of authority, I think, is opposed to venesection.

At Guy's Hospital, in the last 50 cases in which venesection was used the mortality was 30 per cent. In 34 cases since, it has been $20\frac{1}{2}$ per cent. Kucher, of the Vienna School, where the results have been very good, says that blood-letting has been completely discarded. In Schroeder's clinic, bleeding is not now practised. Winckel is also opposed to blood-letting. In my own cases I have resorted to bleeding in three instances in large amounts, 30 to 40 oz., when other means were apparently failing to control the convulsions, with the result of stopping the convulsions, but losing my patient in each instance. From what I can gather from my reading, from statistics and my own experience, I believe better results would be

obtained in these cases by persistingly carrying out the indications I have endeavored to lay down in this paper.

But there is a class of cases one meets with usually in strong and plethoric subjects; the patient has had one or more convulsions, is probably comatose, there is great venous congestion, the veins of the neck are turgid, the lips purplish, the face bloated and suffused; there is much embarrassment of respiration, when it always seems to me reasonable and good practice to extract a moderate amount of blood; and when I have resorted to it, the symptoms have improved, the color of the face becomes more natural, the respirations easier, and the general condition of the patient more favorable; perhaps also a brain lesion is prevented, absorption favored, and the action of other remedies assisted.

Society Proceedings.

ABSTRACT OF THE PROCEEDINGS OF THE THIRD ANNUAL MEETING OF THE AMERICAN ELECTRO-THER- APEUTIC ASSOCIATION.

HELD IN CHICAGO, SEPTEMBER 12, 13 AND 14,
1893.

AUGUSTIN H. GOELET, M.D., *President*.

FIRST DAY—SEPTEMBER 12TH.

AFTERNOON SESSION—*Continued*.

The fixation of the tumor may be accomplished with the help of an instrument called the vesical tenaculum caché, and this instrument can be used as a guide to the introduction of the electrode. With this method a cannulated platinum needle is employed, which not only allows of the easy introduction of the needle, but is so arranged that the needle is projected only a certain distance beyond the end of the cannula into the tumor—a distance which can be determined beforehand by the proper adjustment of the instrument.

All the operations were done through the urethra, without the employment of anæsthesia,

the production of pain, or interference with the patient's occupation. The author did not wish to be understood as asserting that electrolysis would cure all benign tumors of the bladder, yet he claimed very satisfactory results in the cases which he had thought proper to subject to this treatment.

"The Nutritional Effects of Static Electricity Considered in Relation to High Frequency and High Potential Currents, and the Transparency of the Dielectric."

Dr. William J. Morton, of New York, read a paper with this title. Through the recent labors chiefly of D'Arsonval, Tesla and Elihu Thompson, static electricity has assumed new and important relations to electro-therapeutics. In contra-distinction to the low frequency of the current obtained from the ordinary faradic coil, the high frequency high potential current is simply a periodical current, or one in which the electrical energy is cut up into many waves or periods—ten thousand to ten million per second. With this high frequency there is a correspondingly high electromotive force, and it is mainly these factors and not electrolytic conduction which is the important point to be considered when studying the electro-therapeutic effects of this current.

When a Leyden jar is suspended in connection with any electrostatic machine and the spark caused to pass, every time the spark passes there is a corresponding discharge in the Leyden jar, and with each discharge oscillations take place many thousands of times a second. This is the periodical current with which we are dealing in electro-statics. The oscillations are reduced in frequency in proportion to the resistance in the circuit.

The high frequency current seems to possess an unlimited power of penetrating tissues of the body. As the static machine is set in motion and a spark passes, every particle of ether in the room is also set in motion, and the same vibration is set up in our own bodies.

According to the modern view of electricity, the electrical energy which produces what we call the current is around the wire and not in the wire, and the electrical influence is felt in the medium around the wire. If this is not a conductor, then these same ether vibrations impinging on the dielectric put it in a condition of strain. The dielectric is a non-conductor, having a charge, and being in relation to another body also having a charge. It is found that these periodical currents are conveyed both by our conductors and our non-conductors, and in the technical language of the present time it is said that a dielectric is "transparent" to periodic currents.

The principal object of the paper was to present the results of a series of observations which the author had made at his clinic in the New York Post-Graduate Medical School.

The secretions were affected. That the circulation is visibly affected is shown by the dilatation of the cutaneous vessels following immediately upon the application of sparks locally or generally. A series of tabulated cases were shown, showing that in a great number of cases under observation the pulse was lowered by statical electrization from fifteen to twenty beats, and that the body temperature was usually increased from half to one degree. Stating broadly, he thought he might deduce the law that the disposition of statical electrization is to produce an equalization by acting upon the centres—reducing a frequent pulse and elevating a subnormal temperature, or vice versa.

Observations were also presented, which showed that in cases of chronic articular rheumatism this treatment resulted in greatly diminishing the quantity of uric acid and correspondingly increasing the quantity of urea. It was also noted that many patients while under this treatment gained in weight very perceptibly—one patient gaining forty-two pounds in five weeks.

The author concluded by expressing the conviction that statical electrization was only the beginning of a new and extremely important era in which the periodical current would play a prominent part, and lead to much better practical results. The very mechanism which the author was the first to describe, and which was published in 1881, is to-day found to be essential for producing these wonderful electrostatic effects of alternating currents.

DISCUSSION.

Dr. H. E. Hayd, of Buffalo, said he could vouch for the statement that statical electricity profoundly affects the secretions, for he had frequently observed that it increased the specific gravity of the urine. He also knew from personal observation that it stimulated the circulation, and was especially useful in muscular rheumatism owing to its power of increasing the activity of the hepatic function. He could also confirm what had been said about the increase in body weight and in the quantity of urea excreted.

Dr. Massey referred to a recent case in which the improved nutrition could only be attributed to the effect of the static charge.

Dr. Herdman said that the effect of statical electrization on the circulation was sufficient to explain many of the beneficial results mentioned. He believed that in spinal irritation, and in neurasthenia, the good effects of this treatment were directly attributable to its action in relieving the passive congestion which he considered to be the fundamental cause of these affections.

A few days ago, Tesla admitted in his presence that his experiments with the high fre-

quency current were the result of his attention being directed to the subject by Morton's description of his method of producing the static induced current.

Dr. Holford Walker, of Toronto, said that although his experience with statical electricity extended only over the past year, he had observed beneficial effects from its use, which could only be explained by its action in increasing the circulation.

Dr. J. B. Greene, of Indiana, said that the author had not shown any marked change in the temperature as a result of statical electrization, although claiming a marked effect on the pulse; nor had he exhibited any sphygmographic tracing from these patients. This he considered a very serious omission. His own observations had led him to believe that the good effects observed after statical electrization were largely due to "suggestion."

Dr. W. B. Sprague, of Detroit, said that although using one of the small static machines which had been characterized as a "toy," he had obtained gratifying results with it in cases of neurasthenia.

Dr. P. S. Hayes, of Chicago, said that his experience with statical electrization during the past ten years justified him in endorsing what had been said in its favor. Taking into account the high tension of statical electrolysis, he believed that the current acted directly on the contents of the cells in the tissues, and not merely on the fluids surrounding the cells.

Dr. Margaret A. Cleaves, of New York, said that she had also observed a remarkable increase of body weight in many cases. She also called attention to one very practical point—viz: that constipation of many years' standing is very commonly relieved by statical electricity applied over to the lumbar and sacral plexes of nerves and to the abdominal parietes.

Dr. Morton, in closing the discussion, said that if "suggestion" were capable of uniformly affecting the pulse and temperature in the manner exhibited in his tables, it might well be adopted instead of electrical treatment. A rather intimate acquaintance with the subject of hypnotism had failed to convince him that it possessed any such remarkable power. A change of one degree uniformly in given cases he considered a "marked change."

A paper on "Electro-Medical Eccentricities," by H. Newman Lawrence, Esq., of London, Eng., in the absence of the author was read by the Secretary.

He first discussed a very common defect of many text-books on electro-therapeutics, viz: the apparent lack of connection between the part which treats of electro-physics and that which treats of the therapeutical applications of electricity.

He next suggested that there should be a proper standard of qualifications for medical

electricians, and that those so qualified might with advantage carry out the electrical treatment of cases referred to them by general practitioners. The third topic which received attention was the existence of so much quackery under the name of electricity or magnetism. The author thought the medical profession should no longer remain silent in regard to so-called magnetic apparatus and appliances dependent for their action upon the well-known process of electro-physics, and he suggested that the Association appoint a committee to consider the best way of overcoming these abuses.

The paper was discussed by Dr. Morton and Dr. Herdman, both of whom expressed the opinion that any attempt to overcome such outrages by legislation would produce the very opposite result to that which all desired. It was only by individual effort in the dissemination of correct popular information on medical electricity that we could hope to defeat these quacks.

"The Action of the Continuous Current within Living Tissues as Distinguished from the Local Polar Action."

Dr. W. J. Herdman, of Ann Arbor, read a paper on this subject. Whenever a tissue is subjected to the action of a continuous current, owing to the fact that the tissue is made up of cells containing fluids and surrounded by cell walls having a greater resistance, these fluids must be absorbed. This is by a process of convection and not of conduction. This theoretical view that electricity must exert a systematic effect is confirmed by experiments made by the author and by others on healthy animal and vegetable tissues. It was found that when these tissues were exposed to a feeble current of electricity for a short time daily, their growth was decidedly increased, but it was retarded by a more prolonged action of the current.

DISCUSSION.

Dr. Massey said that the abdominal walls of many patients undergoing the Apostoli treatment for uterine fibroids became the seat of an increased deposit of fat owing to the improvement of the general health consequent upon the treatment.

Dr. Morton said that the experiments of G. Weiss, the physiologist in Paris, bore out the point made in the paper regarding electrolytic action and its effect on functional activity of the cells. This investigator passed a strong continuous current through one leg of a healthy frog. After a week it was found that the excitability of this leg was about ten times less than that of the other leg. The speaker said he believed in the polar effect, and believed it reached deeply. Acting on this purely physical view of the action of the electrical current in

the human body, he had been in the habit of applying the positive pole to the spine for all spinal cord degenerations, and the negative pole for all inflammations. This was exactly the reverse of the usual treatment, but his experience with this method of treatment had only served to convince him that it was founded on a correct theory.

Dr. Herdman, in closing the discussion, said that although many electro-therapists did not believe at all in the intra-polar action of the current, he not only believed in it, but considered it very important. By the term "convection" he had meant to convey the same idea as we represent in the expression "progression of the atoms."

"Observations on the Treatment of Goitre."

Dr. Charles R. Dickson, of Toronto, read a paper with this title. He now uses Goelet's modification of Apostoli's clay pad, and begins with a current of 10 to 15 m.a. for ten minutes. The treatment is continued on alternate days, and the strength of the current gradually increased up to 100 or 120 m.a., although in exceptional cases over 200 m. a. may be used. He considers a strong current applied for a short time preferable to using a weak one for a long time. After the treatment, the parts are sponged off with a cold solution of boracic acid. If after several weeks of this external treatment there is no result, it is proper to resort to puncture. Strict antiseptic precautions are observed, and the puncture is made with a surgeon's needle insulated with several coats of collodion. The puncture should be made, if possible, low down through the isthmus, and during the introduction of the needle the patient should be directed to swallow, so that puncture of the larynx may be avoided. The subsequent punctures are all made at the same spot.

In the cystic form the external treatment is of little use. Here the author advises inserting an aspirating needle, drawing off the contents and filling the sac with a solution of salt in boiled water. The object of this is to make use of an electrode which will fill the deepest recesses of the sac. The aspirating needle is used as an electrode, and after the application the fluid is withdrawn.

In conclusion, the author said that he still maintains that in electricity we have one of the most valuable agents in the treatment of all forms of goitre, and that it is the safest treatment. He had known even external applications of iodine to produce so much cedema that death from asphyxia seemed imminent. Electrical treatment in exceptional cases may have to be extended over a period of two years.

DISCUSSION.

Dr. Massey said that some years ago he had succeeded in absolutely curing a cystic goitre which had resisted other means. Four out of

six cases of exophthalmic goitre he had completely cured by the external application of a current of 10 m. a.

Dr. Morton cited one case in which he had succeeded in reducing a very large goitre to one-third its original size by means of the faradic and galvanic currents used simultaneously by a combining switch.

Dr. Walker spoke of a case in which a lady received such prompt relief from electrical treatment that she would not continue it long enough for a cure to be effected, but preferred to return once each year and receive treatment for about three weeks.

Dr. Dickson said, that in one case where the goitre was large and distinctly fibrous, there was a protrusion of the right eye-ball, which diminished in proportion as the goitre was reduced.

SECOND DAY—SEPTEMBER 13TH.

MORNING SESSION.

Dr. Holford Walker, of Toronto, reported a "Case of Ascites Cured by Galvanism." The patient, a little boy, was treated by galvanism, thirty-nine applications being given. The positive pole was a large clay abdominal electrode, and the negative a large metal disk, which was applied alternately to the shoulders and back every other day for fifteen minutes. The patient was unable to tolerate a current of more than 50 to 75 m.a. At the end of three weeks it was evident that the fluid was being absorbed, and in a month or two it entirely disappeared, and since then the patient has continued well except for a mild attack of rheumatism. Previous to resorting to electricity, all the usual remedial measures had been tried, and had failed.

DISCUSSION.

Dr. Newman cited from memory the case of a man with extensive anasarca and ascites who was brought to him after a number of consulting physicians had expressed the opinion that in spite of treatment he could not live more than two days. Not more than this time elapsed before he measured three inches less than before the electrical treatment was begun, and he ultimately recovered entirely. The speaker could not recall the original diagnosis recorded in his case-book. He thought that the treatment caused the withdrawal of some of the fluid, and that it stimulated the secretions.

Dr. Engelman cited a case of ascites, seemingly just as severe, where two very able physicians gave a similar prognosis. At this juncture, some of the patient's family insisted upon calling in a quack, whose treatment consisted in making certain "passes" about the patient. One of the regular physicians con-

tinued to call, in order to watch the treatment. The patient immediately began to improve, and during the ten years which had elapsed since then, she had remained entirely well. In that case, microscopical and chemical examinations of the urine confirmed the diagnosis of renal disease which had been made by the physicians originally in charge of the case.

Dr. Eugene C. Gehring, of St. Louis, thought that an ascites associated with kidney disease was due largely to spasmodic irritation, and that a cure was brought about by the relaxing effect of electricity on the nervous system.

Dr. J. B. Greene, of Indiana, said that he had been called in consultation a few months ago, to a similar case, where the diagnosis of renal disease was substantiated by the results of the microscopical and chemical examination of the urine; yet, to his surprise, the attending physician afterwards informed him that from the time galvanism was begun the patient began to improve, and eventually recovered.

Dr. Walker, in closing the discussion, said that the diagnosis in his case had never been clear. As the boy had been standing daily immersed in water up to his waist, it was possible that the ascites was the result of an ordinary subacute peritonitis, or of tubercular peritonitis, as there was a history of tuberculosis on the maternal side. The kidneys were perfectly healthy.

"Metallic Electrolysis."

Dr. Margaret A. Cleaves, of New York, read a paper on this subject. By this term was meant treatment by inserting in the natural cavities and in the tissues soluble metallic electrodes, such as those made of copper, zinc and iron. Experiments were cited, which proved not only that an oxychloride of copper was deposited in the tissues, but that subcutaneous injections of comparatively large quantities of this deposited salt failed to produce in rabbits any toxic symptoms. Other experiments indicated that this copper salt had a more powerful bactericidal action than the ordinary galvano-caustic applications, and that by the cataphoric action of the current, the deposited metallic salt is made to penetrate deeply into the tissues. This is a convenient method of applying a metallic salt in the very depths of the most tortuous sinuses, and it should not be forgotten that the salt so deposited, being in the nascent state, is peculiarly active.

The author stated that for intra-uterine work a current of 25 to 50 m. a. is sufficient when given for fifteen minutes, and that then a *reversed* current of 10 or 15 m.a. should be given for six or eight minutes in order to loosen the electrode. However, it should be noted that this adherence of the electrode to the tissues may be avoided by gentle and continued manipulation in suitable localities during the application of the current. Too frequent

applications are liable to retard the progress of the case. The work of elimination and repair which takes place in the neighboring tissues without pain and without inflammatory reaction extended over a period of eight days. Metallic electrolysis has proved extremely efficient in controlling uterine hemorrhage. The electrodes should be carefully rubbed with emery paper after each application.

Cases were also cited in which the author used metallic electrolysis successfully in uterine fibroma, endometritis, urethritis, granular degeneration of the cervix, hypertrophic rhinitis, trachoma and hemorrhoids. Improvement was observed in most of these cases after one or two sittings, and the cure was both speedy and permanent.

An especial set of electrodes for applications to the conjunctival membrane were presented by the reader of the paper, as well as needles for puncture.

DISCUSSION.

Dr. Morton said he had proposed the name "metallic-electrolysis" instead of "interstitial electrolysis," as used by Gautier, because interstitial electrolysis may occur anywhere where there is a powerful continuous current, even though the electrodes are not metallic. He had been surprised to find in a book written by Butler, in 1876, a very good description of a similar method of treatment, but without any reference to its application in gynaecology.

Dr. Morton then exhibited special forms of electrodes which had been found useful in applying this treatment to the nose, uterus, urethra and rectum. The adhesion of the electrode to the tissues is particularly noticeable in the treatment of urethritis, and it is probably due to the formation of a soluble albuminate of the metal constituting the electrode. The speaker then cited a case in which he had promptly cured a gonorrhoea of three months' standing, and also the treatment of a cyst on the side of the neck. He also described the action of metallic electrolysis in curing hemorrhoids and atrophic rhinitis, the cure in the latter condition, he thought, being probably due to a restoration of the activity of the few glands which have escaped the destructive process.

Dr. Hayd objected to the treatment from theoretical consideration. He thought it was unduly magnifying the local action of the current, and at the same time encouraging the already too prevalent practice of employing intra-uterine treatment.

Dr. Massey said that the objections made by the last speaker did not apply to the *expert* use of intra-uterine applications. We have metallic electrolysis every time we use the galvanic current, unless the patient be protected by a very large clay pad to catch the particles

of metal which pass off from the metallic conductor. As regards this mode of treatment in connection with hemorrhoids, he wished to state that he had applied a current of 40 or 50 m.a. with a carbon electrode to hemorrhoids, and had seen them reduced by this means, so that it could not be said that metallic electrolysis is essential for such reduction.

Dr. Green also objected to this indiscriminate probing of the uterus as unwise and unsafe. He had quickly cured one case of hydrocele by galvano-puncture of the sac with a zinc needle, without withdrawal of the fluid. There had been no relapse.

Dr. P. S. Hayes said that while admitting the dangers likely to follow upon the employment of intra-uterine galvanic treatment in improperly selected cases, he felt that in suitable ones the expert operator could have accomplished his purpose much more safely than by the usual topical applications of medicines. It was important to remember that without due regard to the proper technique of metallic electrolysis, it was an easy matter to produce a trauma as a result of the agglutination of the electrode to the tissues. The speaker also emphasized the peculiar powers possessed by metallic electrolysis by virtue of the metallic salts being in the nascent state, and the current carrying them deeply into the tissues. It is probably because of this penetrating action that it has been found so useful in the treatment of gonorrhoea.

Dr. Gehrung remarked that this cataphoric action of the current carried along one portion of the medicament before another particle was presented to the tissues, thus preventing a clogging up of the spaces with the medicine.

The President said that he was the first to call attention to the uterine colic excited by cupric electrolysis. Further investigation convinced him that the astringent action of the application tended to constrict the canal and obstruct drainage, and some of the gas which was evolved during the electrolysis did not combine with the metal of the electrode, but remained free in the cavity. By securing better drainage from the cavity by means of previous dilatation, cases which had before suffered from colic were able to receive the treatment with entire freedom from this unpleasant complication. He knew of nothing superior to cupric electrolysis for controlling the most severe forms of uterine hemorrhage, but for endometritis and granular degeneration of the cervix, he preferred zinc electrolysis. Zinc electrolysis was also useful in promoting the healing and obliteration of the sac of suppurating vulvo-vaginal glands after incision and evacuation of the contents. He had also treated successfully by zinc electrolysis a large keloid involving the anterior surface of the thigh, using 5 m. a. for each zinc needle, for 10 minutes, about 10 or 12 applications being required. He had employed zinc electrolysis also in one case of fibroid by

means of vaginal puncture, and had noted that it produced decided softening and marked diminution in the size of the growth.

Dr. Cleaves, in closing the discussion, said that while she believed a great deal of intra-uterine treatment is unnecessary, she was satisfied that in certain cases the results from such treatment were quicker and more lasting than from any other. In her own practice, she did not exceed a current of 30 m. a., and oftener used a less current strength.

"Some Observations on the Fine Wire Coil or Current of Tension."

Dr. H. E. Hayd, of Buffalo, read a paper on this subject. He said that his own induction coil consists of 3500 feet of No. 32 wire, tapped at three points, so as to permit of using lengths of 1500, 2500 and 3500 feet respectively. He had been informed that the vibrator made from 250 to 350 vibrations per second. In securing a sedative action from such a coil, it is very important that the action of the vibrator should be both rapid and smooth. The current from the fine coil may be considered a specific in the relief of that form of neuralgic dysmenorrhœa characterized by tenderness over the ovaries, marked epigastric tenderness, nausea and vomiting. The treatment is safe and painless, and the current is best administered by means of a simple bi-polar vaginal electrode. These conclusions were supported by a number of illustrative cases.

DISCUSSION.

Dr. A. Laphorn Smith, of Montreal, said that at least half a dozen cases which had not been relieved by laparotomy and the removal of the appendages had come to him subsequently, and had been completely relieved of all symptoms by the use of the fine wire current.

Dr. Engleman said that very vague notions prevail regarding the speed of the ordinary interruptors on induction coils. If the author had used a speed of 350 vibrations per second, the patient would not have felt the current. The average vibrator he had found by actual experiment made from 2000 to 2400 vibrations per minute, and the best of the old kind of vibrators which he had been able to find in the market—that of Gaiffe—only vibrated 3000 times per minute, or 50 per second.

(At this point the discussion was interrupted in order that it might form a part of the formal discussion on this subject which had been arranged to take place in the afternoon.)

AFTERNOON SESSION.

DISCUSSION.

"The Influence of Frequency of Interruptions and Character of Induced Current Waves upon the Physiological Effect."

Dr. William James Morton, of New York,

opened the discussion. He said we possessed three mechanisms for exciting induced currents, viz.: (1) the induction coil; (2) dynamo-electric machines; and (3) condensers—Leyden jars, etc. It has been found that the current with long periods will kill instantaneously while one with short periods is harmless. The speaker said that in April, 1881, the *New York Medical Record* published an article, in which he described a new induced current obtained from the static machine. His conclusions were: (1) That the current possessed great diffuseness; (2) that it produced an analgesic effect; (3) that it produced a vaso-motor effect, manifested by dilatation of the superficial blood vessels and the occurrence of perspiration; and (4) that it caused an elevation of the body temperature. His mechanism, then published, is the fundamental electrical mechanism necessary to produce the high frequency high potential currents now so thoroughly familiarized by the labors of Tesla, Elihu Thompson and D'Arsonval.

In February, 1891, Tesla published his first article on high frequency currents. In this article he made the statement that the writer's experiences tend to show that the higher the frequency the greater the amount of electrical energy which may be passed through the body without serious discomfort.

About the same time, Elihu Thompson was investigating the same subject. He found: (1) that the higher the frequency the less the effect on an animal; (2) that the cause of pain lies chiefly in the muscular contractions produced; (3) that the cutaneous nerves were less painfully affected at a higher rate; (4) that the visual mechanism was not excited at a higher rate, even with a pressure of fifteen volts.

D'Arsonval's conclusions were: (1) That the high frequency current had no effect on the organs of feeling; (2) that it produced no muscular contractions; (3) that there was a diminution of the sensation of pain; (4) that there was a dilatation of the blood vessels; (5) that it caused an increased perspiration; (6) that it caused increased tissue change, manifested by increased absorption of oxygen and increased elimination of carbonic acid; and (7) that it caused no increase of body temperature.

Dr. Morton then exhibited a medical induction alternator affording sinusoidal current, which Mr. A. E. Kennelly had constructed at his suggestion. It gave a current having 1200 periods per second.

The discussion was continued by a communication from A. E. Kennelly, Esq., of the Edison Laboratory, entitled "Induction Coils."

In his absence, the paper was read by Mr. E. M. Smiles. The author began by giving a strictly technical description of the magnetic laws involved in the working of induction coils. Observation shows that the primary current does not instantly reach its full value, but there

is developed in the primary coil an electromotive force which is always in opposition to that of the battery. This is called self-induction. As soon as the vibrator spring leaves the contact point, the metallic circuit is broken, but not instantly, for there is induced a secondary flux in both the primary and secondary coil, and in such a direction as to sustain the battery current. The duty of the faradic coil is to supply a certain strength of alternating current at a given frequency. Probably no two coils give precisely the same wave characters; long coils and many windings produce smoother flowing and less abrupt waves. The ordinary form of spring vibrator rarely supplies more than 250 vibrations per second, while the ribbon spring easily makes 1000 vibrations per second; but both are very irregular. If a current of 5 m. a. be supplied by an ordinary faradic coil at 250 alternations, there will be much uncertainty as to the wave characters, but if the primary be excited by a sinusoidal current of the same frequency, the character of the waves can be accurately determined.

A communication from Professor Edwin Houston, of Philadelphia, entitled "Remarks upon Apparatus to produce Induction Currents and the Character of the Waves of Individual Apparatus, with especial reference to those applicable to Medical Uses," was read by Dr. Morton in the absence of the author.

Reference was made to the remarkable change in the physiological effect which resulted from a change in the frequency of the interruptions of the current. The harmlessness of the high frequency current is probably due to the fact that it is unable to reach the deeper organs, for, if the effect of the discharge on a bar of solid copper is very superficial, the effect on the human body must be still more superficial.

Dr. J. H. Kellogg, of Battle Creek, continued the discussion in an article entitled "The Graphic Study of Electrical Currents in Relation to Therapeutics."

Dr. Kellogg said that he thought thus far in the discussion two or three different forms of current had been confounded, for the rapidly interrupted current is not a sinusoidal current. He first described this current in a paper read before the American Medical Association in 1888. The effects obtained from it varied with the speed on the machine. When only fifteen or twenty alternations were made per second, it produced vigorous muscular contractions with complete relaxation at each alternation. The sensory effects are best obtained by giving the machine a high velocity; under such circumstances, it will be found that if the electrode be placed in the region of the eye, the subject will perceive a luminous field which varies its position with that of the electrode.

He had made more than twenty thousand applications of the sinusoidal current, the

greater number being in gynecological cases, and with it he had been enabled to cure hundreds of women who had previously suffered many things at the hands of gynecologists. The current is chiefly useful: (1) In exercising muscles which are not easily brought into action by voluntary effort; (2) for producing muscular contraction in cases where degenerative changes have advanced so far that the muscles fail to respond to the faradic current; (3) in connection with "the rest cure" for giving exercise to feeble patients. Here it is superior to the faradic current on account of the painlessness of the contractions and their greater vigor. The application is also more easily made as it is not necessary in most cases to locate accurately the motor points. (4) It is very valuable when used alternately with massage. (5) It is of the greatest advantage in strengthening relaxed abdominal muscles, which are often responsible for displacements of various abdominal viscera, and the occurrence of various reflex symptoms. (6) For the treatment of hyperæsthetic conditions of the nervous system. Here it is necessary to employ an extremely delicate rheostat, and to use the current obtained from the machine while at a high speed. In marked contrast with the faradic current, he had found no idiosyncrasy to the sinusoidal current.

He believed the rheotome was a fatal element of weakness in the induction coil, and that this well known instrument is inherently faulty as an agent in electro-therapeutics. Nothing but the graphic method would enable the medical practitioner to regulate a faradic apparatus so as to obtain exactly the same current at all times, and he predicted that the faradic apparatus would have to give place to a more reliable instrument.

(Discussion postponed until next morning.)

THIRD DAY.—SEPTEMBER 14TH.

MORNING SESSION.

(Discussion of yesterday concluded.)

H. Newman Lawrence, Esq., M.I.E.E., of London, England, sent a contribution to the discussion, entitled, "In Medical Induction Coils, how does the Current of the Primary differ from that of the Secondary; and what Influence has this Difference upon the Respective Physiological Effects?"

The charging current can be measured both as to voltage and amperage; the secondary current is the source of alternating impulses, and dependent for voltage and amperage upon the number of turns around the primary, the strength of the charging current, and the rate of interruption of the vibrator. Muscular contraction may be produced by an infinitesimal amperage, provided it be sufficiently concen-

trated. In general, therefore, when muscular contraction is required, the primary current is the more painful to use; but owing to its other properties it may be found in certain cases less painful when applied to the nerves.

The discussion was continued by the reading of a communication from Dr. William F. Hutchinson, of Providence, R. I., entitled, "A Study of Electrical-Anæsthesia and Frequency of Induction Vibration." This paper was supplementary to one on the same subject read at the last meeting of the Association. By means of Cook's reed-pipe, the author had been able to more accurately determine the number of vibrations. He now believed that the cause of electrical-anæsthesia must be looked for in that principle of mechanics known as the superposition of small motions. In a vibrating wire it is found that there is a "dead point" or spot at which the wire is at rest. Replacing the reflected wave on the wire by an efferent impulse along the nerve, we can imagine that electrical-anæsthesia is due to the formation of a similar "dead point" along the nerve. Just as many vibrations must be imparted to a sensory nerve inwardly as are proceeding outwardly upon it, in order that a dead point or zone of anæsthesia be created. The rate of the electric wave and that of the nerve impulse seem to be identical, and hence, pain is the mechanical expression of disturbed energy, and it is to be destroyed temporarily by such vibratory action as will restore rest to the nerve. The writer admits, however, his inability to explain why it is that the anæsthesia should be confined to an area not much greater than the electrode, although it is easy to demonstrate that the current traverses the whole length of a nerve.

The President here took part in the discussion, making some remarks "On the Influence of Frequency and the Graphic Curve on the Results of Gynæcological Electro-Therapeutics, particularly with the Sinusoidal Current."

His conclusions were based upon observations made with the faradic current and an apparatus constructed for him by the Kidder Manufacturing Co., consisting of an alternator run by a motor, by which an alternating current having 800 alternations per second could be sent through the primary coil of his induction apparatus. With five Leclanche cells in the primary, the current obtained in this manner and with this, this number of alternations was almost imperceptible to the hand, but he noted that it was appreciable in the vagina. It had a marked soothing effect on the patients upon whom he had tested it. He claimed to be able to cure endometritis with the alternating current or the interrupted induced current as obtained from the improved faradic apparatus he had devised. The way in which it accomplished this was, in

his opinion, by its influence upon the vasomotor supply in relieving pelvic congestion which is often the primary cause of the trouble. When the canal is not patulous, free drainage was secured by occasional negative galvanic applications of very moderate strength.

He believed with Mr. Bland Sutton, that in the great majority of cases of salpingitis the obstruction in the tube is due to tumefaction of the mucous membrane; and if this can be removed, as is often possible, by means of a proper application of the current, it is an easy matter to secure natural drainage of the tubes through the uterine cavity.

One very noticeable effect of this current was a very decided improvement in the systemic condition even when it was applied to the pelvic organs.

(The discussion was here interrupted to allow Dr. Kellogg and Dr. Morton to demonstrate the properties of the alternating current as obtained from their machines.)

Dr. A. Laphorn Smith then resumed the discussion. He said that the same increase in weight which is observed after the application of the sinusoidal current results from ordinary exercise. Referring to the fineness of the interruptions, he said that an excellent vibrator for this purpose could be made out of a piece of ferrotype metal. He had been able to obtain with the fine wire faradic current all that Apostoli claimed for the sinusoidal current. The improvement in the circulation was principally due to the muscular contractions produced by the current.

"The Alternating Current in Electro-Therapeutics."

Drs. Georges Gautier and A. Larat, of Paris, France, sent a paper with this title. It was translated and read in abstract by Dr. A. Laphorn Smith.

The paper stated that the faradic current attained its maximum quite suddenly, whereas the sinusoidal current reaches its maximum much more gradually, and consequently a larger dose can be borne. They claimed that any current having oscillations not over 20,000 per minute is a sinusoidal current, and that the action of the sinusoidal current, even when muscular movements are absent, is to increase the absorption of oxygen and the elimination of carbonic acid and urea. One curious point noted was, that if after a person has eaten asparagus he be subjected to the action of the sinusoidal current, the asparagus will not impart its peculiar odor to that person's urine. They claim that the current is useful in reducing obesity and in treating certain forms of eczema and vitiligo, and that it is peculiarly efficient in the treatment of infantile and pseudo-hypertrophic paralysis. They recommend that the current be applied through electrodes hanging over the edge of a porcelain

bath, and they add that for the sake of propriety it is desirable that the water of the bath should be rendered opaque by the addition of starch.

Dr. Herdman said he had had very little personal experience with the high frequency currents, but he had been using for the past three years the Thompson-Houston dynamo current, giving ten thousand alternations per minute. It was an agreeable current, but exerted a peculiar tonic effect on the vaso-motor system. We must admit that vibrations producing musical tones have some special physiological effects, but remarkable results are obtained with vibrations extending even beyond the limits of such tones.

Dr. George J. Engleman, of St. Louis, thought in this discussion the faradic current had been treated in a pitiable way. The objections which had been made against it were those which applied to the old-time instruments and which he had overcome by his separate vibrator and interruptor. Determining the number of the vibrations by musical notes is not only time-consuming, but is necessarily inaccurate on account of the large personal equation which it involves. He had gone still further with his investigations, and had shown that in addition to the improvements already mentioned, special coils must be constructed for certain definite effects. He had no experience with the sinusoidal current, but from what he had seen and heard from those who had introduced it, he had not been tempted to experiment with it.

Dr. Morton, in closing the discussion, said that he thought the criticisms of the preceding speaker admitted the objections which had been made upon the unreliability and limited efficiency of the faradic coil as ordinarily constructed.

He had been much puzzled by Dr. Hutchinson's paper, for if he understood it correctly we were asked to assume that the vibrations of an electric current, which are given at 540 per second, interfere with the vibration of nerve impulse, which are about 11 to 19 per second. Although he admitted the power of the current to produce certain analgesic and subjective effect, he did not believe it could produce true anæsthesia, and he could not but deprecate the fact that at neither the last meeting nor the present one had Dr. Hutchinson demonstrated his method of producing electrical-anæsthesia.

"The Treatment of Dysmenorrhœa by the Galvanic Current."

Dr. A. Laphorn Smith, of Montreal, read a paper on this subject, in which he took the ground that dysmenorrhœa is very commonly due to endometritis rather than to stenosis of the canal. Thus, many cases are not at all relieved by rapid dilatation of the canal unless this procedure is followed by curetting or

the application of iodine. From theoretical considerations he had been inclined to believe at first that the method of intra-uterine galvanization which he advocated for the relief of dysmenorrhœa, would result in sterility, but further experience has shown this not to be true. Apostoli quotes thirty cases in which pregnancy followed such applications. This important theoretical objection being disposed of, he felt free to urge the adoption of this treatment, as the mild currents employed rendered it both safe and painless. If the uterus be large and the menstrual flow profuse, he would use the positive pole in the uterus; but if the uterine horns were poorly developed, and the flow scanty, then he would prefer negative pole.

After a careful bi-manual examination has excluded pregnancy, and has enabled the operator to form a correct idea of the condition of the pelvic organs, the vagina should be disinfected with a douche, and a large Simpson sound, curved to correspond with that of the uterine canal, is passed through the flame of an alcohol lamp, cooled, and insulated with rubber tubing to within about $2\frac{1}{2}$ inches of its tip. Under the guidance of the finger it is then gently passed into the canal until an obstruction is met with, when a current of about 10 m. a. is turned on. The instrument soon passes on, and after a current of from 20 to 50 m. a. has been allowed to flow for about five minutes, it is gradually reduced and turned off. The sound will then usually almost drop out of itself. A boroglyceride tampon is then inserted in the vagina, and the patient allowed to go home. No precautions, such as resting in bed, are considered necessary, and, as a rule, the patient only received the treatment twice a week for from three to six weeks, when the second period will usually come on without pain. When the intra-uterine electrode is connected with the negative pole, the positive pole consists of a clay abdominal electrode. Where the positive pole is made the active one, this pole must be of platinum, carbon or zinc.

DISCUSSION.

Dr. Massey said he could endorse all that the author had said about the simplicity and safety of this treatment. He rarely saw atresia except after the use of very strong currents, or where the operator had neglected to insulate the cervical portion of the electrode. For this purpose, he preferred shellac to a rubber tube.

Dr. W. B. Sprague, of Detroit, said he had very rarely failed to relieve dysmenorrhœa by intra-uterine application of electricity. He preferred to use the negative pole with a current of moderate strength, and so far from producing atresia, he had relieved such as already existed. In this class of cases he never used currents stronger than 15 m. a., and he was inclined to believe that the menstrual pain is due to hyper-

sensitiveness of the nerves rather than to endometritis; for he had relieved the condition by currents so mild that they could hardly be expected to cure an endometritis.

Dr. P. S. Hayes, of Chicago, said he wished to be placed on record as fully endorsing the claims made in the paper.

Dr. Margaret A. Cleaves, of New York, said that after an experience of six or seven years, she could corroborate what had been said in the paper. She thought the dysmenorrhœa was quite as often due to pelvic congestion as to endometritis, and that this explained why it was relieved by such mild currents. A number of her patients had become pregnant within a few months, and she did not believe that intra-uterine galvanization caused sterility after the treatment. She greatly preferred leaving an interval of from five to seven days between the treatments.

Dr. Kellogg had found that although there was no stenosis of the canal, many cases of dysmenorrhœa are associated with vegetations, which he believes swell up at the menstrual period, and so produce a temporary obstruction. At any rate, such cases readily yield to applications of 10 to 20 m.a., usually with the positive pole in the uterus. Where the trouble seems to be due to simple hyperæsthesia, he had found the positive pole especially effective. His experience was entirely opposed to the idea that the treatment prevented pregnancy.

Dr. C. R. Dickson believed with Dr. Cleaves that dysmenorrhœa is very frequently due to simple pelvic congestion. He was glad to see that operating surgeons were showing a greater disposition than formerly to refer these cases to those who make a specialty of electro-therapeutics.

Dr. Franklin H. Martin sounded a note of warning against recommending such intra-uterine treatment too freely to the general profession. The initial step should be the making of an accurate diagnosis. If the dysmenorrhœa were due to non-development of the uterus, the faradic current of slow vibration would be much more appropriate than the galvanic; if, on the other hand, it were due to tubal or ovarian disease, the galvanic treatment would result disastrously. Where dysmenorrhœa is due to endometritis or stenosis of the canal, positive galvanisms to the interior of the body of the uterus only was indicated.

Dr. Walker said that when the pain was most marked two or three days previous to the appearance of the flow, he was always very suspicious of the existence of disease of the appendages, and therefore would not resort to galvanic treatment until a careful examination under chloroform had excluded such a condition.

Dr. Smith, in closing the discussion, said that he had taken it for granted that an accurate

diagnosis was a pre-requisite to safe and successful treatment. Believing, as he did, that in the majority of cases dysmenorrhœa is due to reflex spasm of the fibres of the internal os, brought about by an endometritis, he preferred to apply a mild current *directly* to the internal os.

AFTERNOON SESSION.

"The Treatment of Subinvolution by Electricity."

Dr. Charles G. Cannaday, of Roanoke, Va., read a paper with this title. The author believed that the greatest benefit is to be obtained in the shortest time from the use of electricity. He recommended for restoring the tone of the uterus that a current of 30 m.a. be applied to the interior of the uterus for ten minutes at a time, and that this be followed by the application of the faradic current from an Engleman coil of 600 meters, using a bipolar vaginal electrode. He thought that free use of ergot during labor predisposed to subinvolution, and, therefore, when this drug had been used in this way, he favored as a routine measure the daily application to the uterus of the faradic current.

DISCUSSION.

Dr. Hayes thought no agent superior to electricity for reawakening the retrograde physiological process necessary to complete involution, but he preferred the galvanic to the faradic current. He more commonly employed the positive pole, as there is ordinarily a condition of undue moisture present.

Dr. Sprague did not think it made much difference whether the galvanic or the faradic current was employed, but to obtain the best results the applications should be made on alternate days.

Dr. Massey used the faradic current chiefly in cases which had not existed for more than six months; for the more chronic forms, he preferred galvanism. He believed subinvolution to be due to microbic infection of the uterus at the puerperal period, and if the infection be due to the gonorrheal germ, the case will prove most obstinate to treatment.

Dr. Smith also thought that septic infection was chiefly responsible for subinvolution. He corroborated what had been said about the value of the continuous current.

Dr. Cannaday, in closing the discussion, said that where sub-involution had lasted for a year or more, the congestion had in large measure subsided, and, therefore, greater benefit was likely to follow negative galvanization.

"A New Intra-Uterine Electrode."

Dr. Plym. S. Hayes, of Chicago, exhibited an intra-uterine electrode made of a platinum spiral with a stilette in its centre. The object

of this special construction was to furnish an instrument which would allow of the free escape from the uterus of the gas evolved during the Apostoli treatment. He had found that by attention to this detail in the treatment, much of the after-pain could be avoided.

DISCUSSION.

Dr. Eug. C. Gehrung, of St. Louis, said that when he first employed the Apostoli treatment by galvano-puncture, he found that the gas accumulated in the tumors, and formed the basis of future abscesses; so he had constructed an electrolytic trocar and canula, which was described and illustrated in Dr. Massey's book. It was found that the gas and fluids sometimes escaped from the tube for days after the treatment.

Dr. Massey said he had observed enormous quantities of gas escaped from the canula, but he thought most of the irritation observed after the treatment was due to the use of inflexible instruments.

Dr. Dickson thought that the tip of the instrument should be protected, and that any such spiral instrument was objectionable on account of the trauma likely to be produced during its introduction and withdrawal.

Dr. Hayes replied that there was not in reality so much difficulty in introducing and withdrawing the instrument as one would suppose who had not tried it. The evolution of gas is so great when strong currents are employed, that it prevents in a measure the adherence of the tissues to the electrode.

"A Contribution to Electro-Therapeutics in Salpingitis."

Dr. W. B. Sprague, of Detroit, read a paper on this subject. The paper contained the histories of several cases of salpingitis, in which the author had been able to introduce an electrode through the uterus and into the Fallopian tubes at a time when these tubes were distended with pus. In each case, there was a free discharge of pus, and prompt relief to the symptoms. Of course, in many cases he found it impracticable to carry out intra-tubal galvanization, but he had succeeded in other cases besides those reported in the paper, and in no instance had serious symptoms followed the treatment. His experience with this method extended over a period of three years. The treatment is necessarily of limited application, but is still extremely useful in appropriate cases. He used a sound with a curve slightly sharper than the normal one, and was of course careful not to use any force. If after the instrument has reached the cornu of the uterus a mild current be turned on, it will be found usually that in proper cases the instrument will soon pass on into the tube.

DISCUSSION.

Dr. Smith said that many would not believe it was possible to catheterize the tubes, but when in Liverpool. Dr. Wallace had shown him no less than six cases in his hospital at one time, in which the uterine sound had been passed into the Fallopian tubes.

Dr. M. S. Weber, of Detroit, referred to the sneering, doubting manner in which the first communication of the author on this subject had been received by the Michigan State Society, but he felt sure from what he had seen of Dr. Sprague's work, that he was to be congratulated upon what he had accomplished.

Dr. Massey said that in 1880 he brought up this subject before the Philadelphia Obstetrical Society. At that time, he had succeeded in emptying a number of tubes through the uterus. It should be remembered, however, that this was work suitable only for experts.

Dr. Sarah H. Stevenson, of Chicago, said that she had long been convinced that such treatment was feasible, but had hitherto lacked the courage to try it.

Discussion.—"What are the Possibilities of Electricity in the Treatment of Fibroid Growths?" Those participating in the discussion were asked to do so under certain specific heads.

Dr. Kellogg opened the discussion. He said that the improvement in the general health observed was due to the influence of the electric current on the abdominal sympathetic. The growth could be arrested, and in certain cases near the menopause, retrograde change could be expected. He had on a former occasion reported a series of fifty cases, in seven of which the tumor disappeared. Since then, he had not been quite so fortunate. No one would think of employing anything but the constant current except for the relief of pain. He usually employed a coulombmeter in conjunction with the milliamperimeter, thus avoiding troublesome calculations. His personal experience had led him to think that the phlebitis sometimes excited where very powerful currents are employed is a decided help in bringing about retrograde changes in the tumor. He would not employ this treatment in rapidly growing tumors unaccompanied by hemorrhage, in rapidly growing tumors appearing after the menopause, where ovarian cysts accompany the fibroid tumor, where the application is followed by inflammation, and in cases which do not show improvement after a reasonable trial. Recently he had been employing milder currents because they caused less inconvenience, and admitted of more frequent applications. Seventy-five per cent. of his cases had been symptomatically cured; in 55 per cent. the tumor had been very much reduced, and in 14 per cent. it had entirely disappeared.

Dr. Felice La Torre, of Rome, Italy, sent a contribution to the discussion. The galvanic current, in his opinion, certainly arrests hemorrhage, but the diminution in size of the tumor was rare. He discussed a number of theories as to the action of the current, and concluded that it acts chiefly in two ways, viz.: (1) by causing energetic contraction of the uterus, and in this way causing compression of its vessels and arrest of hemorrhage; (2) by producing a disturbance in the molecular interchange of the elements of the tumor, by which the nutritive juices are transformed into peptones or other substances which are absorbed or eliminated by the kidneys, thus giving rise to absorption of the fibroma.

Dr. A. Laphorn Smith had found that this treatment arrests hemorrhage, even in every desperate case, and the general health is at the same time improved. In about half of his cases there was arrest of growth, and in about half of these, the tumor had diminished in size. In only one case was he sure that the tumor had entirely disappeared. The treatment is contra-indicated when there is reason to believe there is pus in the tubes. He favored the use of mild currents, and the sittings not oftener than twice a week. He had never given in any one case of this kind more than one hundred applications, and he usually observed marked improvement after about fifteen applications.

Dr. Cleaves said that she had found the treatment of especial value in intra-mural growths, and that in this class of tumors the pressure symptoms were invariably relieved, the general health improved, and in hemorrhagic cases there was arrest of the hemorrhage. In a limited number of cases there was anatomical retrogression, but in no instance had she observed a complete disappearance of the tumor. She believed that the arrest of the hemorrhage was as largely due to the cataphoric action of the current as to the chemical cauterization. She called attention to the experiments made by Mr. Stewart, of Owen's College Laboratory, by which he had demonstrated the increase of liquids at the negative pole and also an accumulation of salts at the negative pole. In order that there should be such an accumulation, it was necessary that first there should be a decomposition and redistribution of the salts. Fibroid tumors and inflammatory products are rich in salts, especially in chloride of sodium, and are very largely dependent upon the presence of these for the maintenance of their nutrition and growth. The experiments to which she referred go to show that the removal of a considerable proportion of the salts, even if that removal were temporary, would result in the destruction of the tissue, while the removal of a small proportion would affect its nutritive activity. She had also found the induced and static-induced currents of very great value as an ad-

juvant to the treatment of fibroid growths by means of the constant current. Cases in which the static-induced had been used noted a marked sense of well-being, buoyancy and lightness, not only in the pelvis, but in the entire abdominal region.

Dr. Massey said that in a series of eighty cases, in all of the thirty-four hemorrhagic ones, the hemorrhage was controlled; in ten, the growth was simply arrested; in forty-nine, there was distinct retrogression; and in seven, the tumor disappeared. The average current strength was 50 to 150 m.a., and the duration of active treatment varied from six weeks to three months.

Dr. Engleman had had much the same experience as the other speakers. He did not doubt that the tumors could be reduced in size provided they were placed under treatment at the proper time; but he was also compelled to admit that he had seen some very large tumors disappear without any treatment, and this had been the experience of other surgeons. We should be very careful not to employ electrical treatment if there is reason to suspect that the tumor had already begun to undergo malignant metamorphosis, for under such circumstances electricity will certainly aggravate the condition.

The President said that one of the principal uses of electricity in some cases of large tumors is to so improve the general health of the patient when it is so much deteriorated as to admit of operative procedures when they are demanded. He had observed considerable retrogression in favorable cases, but had never seen a complete disappearance of the tumor. It was almost always possible to effect a symptomatic cure. He preferred strong currents and short sittings, and did not think much could be accomplished in less than six months. In recent growths, and in myomata, he would expect retrogression. He advocated the use of the positive pole in myomas and where hemorrhage was a symptom, and the negative pole in fibromas. He called special attention to the danger of producing stenosis, even with negative applications of only 50 m.a., when the cervical canal is included in the action exerted by the current.

Dr. Hayes thought a useful adjuvant to the ordinary Apostoli treatment consisted in applying the static-induced current by means of abdominal and vaginal electrodes.

"Improvements in Electro-Static or Influence Machines."

Paper by Dr. Wm. James Morton. The improvements related to important points in mechanical construction and to utilizing Dr. Morton's discoveries for converting static discharges into currents. There are two directions in which influence machines are of use to physicians, one, the spark and its modifications, the other, the Morton currents. The former are familiar to all, the latter exhibit the phenomena

of high frequency, high potential currents now familiarized by the labors of Tesla, Elihu Thomson and D'Arsonval.

As a result of continued medical work for 13 years with statical machines, the writer had had constructed, by the Galvano Faradic Company of New York City, a machine which embodied, in his opinion, every modern advance. It was fundamentally of the Wimshurst-Holtz type; it had 8 revolving plates, each one 30 inches in diameter; it was provided with a simple device, by aid of which the physician could employ at will the spark, spray, static-induced and the transformer current. In its present shape the new machine answered every purpose in medicine to which influence machines could be put. It was known as the Morton-Wimshurst-Holtz machine.

EVENING SESSION.

Dr. William J. Morton exhibited a new transformer for use with influence machines. The transformer consists of two flat spirals placed in an ebonite box containing oil. The static induced current is led into one coil, and from the secondary coil the current passes to the patient.

This current produces a peculiarly vigorous but painless muscular contraction.

Dr. Morton also exhibited a helmet such as was employed by Charcot in the treatment of disease by means of rapid percussion. The vibrations are produced by a small electric motor. The application of this helmet uniformly and almost immediately relieves the sensation of fatigue, and in some cases it will relieve, at least temporarily, most excruciating neuralgic headaches.

Dr. E. H. Woolsey, of California, called attention to the fact that the relief was probably obtained through the agency of the spine, and was similar to the relief experienced by some when riding on horseback or on a railroad.

"Faradization as it was and as it is with the Controllable and Recordable Current, as provided by a new Apparatus."

Dr. George J. Engleman, of St. Louis, read a paper with this title. The author described his method of separating the interrupter from the faradic coil, so that the current of the latter may be independent of the slow or rapid action of the vibrator. The apparatus is provided with a comparatively slowly revolving wheel, by which one can easily compute the number of interruptions. In view of the fact that the full current from the fine wire coil is scarcely bearable when the interruptions are 2000 to 3000, and yet when they are 15,000 the current is scarcely perceptible, the importance of determining the rate of vibration is evident. Personally he thought the useful limit was 50,000 interruptions. Again, where external irritation is desirable, a short coil of fine wire is required, whereas an entirely different construction is needed for producing

a sedative effect. In addition to noting the number of vibrations of the interrupter, it has been found that the essential points to be recorded are the resistance, the number of windings, and the fineness of the wire.

DISCUSSION.

Dr. Massey remarked that a very objectionable feature of the ordinary faradic apparatus is the rapid oxydation of the contact surfaces of the vibrator.

Dr. Herdman said that this objection had been done away with in the new apparatus, because the rubbing of the contacts on the brake wheel sufficed to keep these surfaces bright. He did not think the physiological limit of such an apparatus had yet been determined.

Dr. Engleman replied that he thought the physiological limit had been reached, for experiment had shown that the best physiological effects were obtained when the number of windings did not exceed thirteen thousand.

The following papers in the absence of the writers were read by title:

"Notes upon some uses of Galvanism in Surgery." By D. B. D. Beaver, M.D., of Reading, Pa.

"An Unconsidered and Important Factor in the Explanation of the Action of Electricity in Uterine Disease." By Henry McClune, M.D., of Cromer, England.

"The Present Position of Electricity in the Treatment of Eclopic Gestation." By A. Brothers, M.D., of New York City.

"Uterine Displacements and their treatment by Electricity." By G. Betton Massey, of Philadelphia.

"Synovitis treated by Calaphoresis." By F. H. Wallace, M.D., of Boston, Mass.

"The Primary Action of the Galvanic Current on the Blood. It increases the Amount of Ozone it Contains, as shown by Chemical Tests of the Blood in the Arteries." By J. Mount Bleyer, M.D., and M. M. Weil, M.D., of New York.

"The Use of Static Electricity in Incipient Insanity." By W. E. Robinson, M.D., of Albany, N.Y.

"The Conservation of Energy as a Successful Factor in Electro-Therapy." By Horatio R. Bigelow, M.D., of Philadelphia, Pa.

Dr. W. J. Herdman, of Ann Arbor, was elected President, and Dr. Margaret Cleaves of New York, Secretary; Dr. Franklin H. Martin, of Chicago, and Dr. A. Laphorn Smith, of Montreal, Vice-Presidents; Dr. R. J. Nunn, of Savannah, Ga., Treasurer, for the ensuing year. It was decided to hold the next meeting in New York City, on the last Tuesday in September, 1894.

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MONTREAL, DECEMBER, 1893.

THE CAUSES OF RHEUMATISM.

It seems strange that after so many years of study of this disease, with an abundance of clinical material, it should still be so little understood. We have more than once in these columns endeavored to show that the disease is entirely due to the supersaturation of the blood with uric acid, which is the last stage of oxydation of nitrogenous food before the final one of urea. We have shown that the malady is entirely preventable in one or all of three ways: First, and most important, by abstaining from such articles of diet as are known to consist very largely or almost entirely of nitrogen, such as lean meat, cheese and milk; second, by taking in as much oxygen by means of active exercise as may be necessary to oxydize all the nitrogen in the blood; and third, if one is unwilling or unable to eat less meat and take more exercise, then the next best thing to do is to drink enough pure water to dissolve as much of the unoxydized nitrogen as possible, and thus to eliminate it by means of the kidneys from the blood.

This subject has been brought prominently to mind by the appearance in the Journal of the American Medical Association, 4th November, 1893, of an interesting and exceedingly instructive paper by Sir James Grant of Ottawa, on "Some rare forms of gout and rheumatism." After relating several rare and interesting cases of pulmonary gout, perityphlitic gout and rheumatic perityphlitis, he goes on to say: "Errors

in diet, as an etiological factor, have much to do with the production of both gout and rheumatism, and such strengthens the metabolic theory that rheumatism depends on a morbid material, produced within the system, the result of defective processes of assimilation. True, Prout, Latham, Richardson, Mitchell and Dr. William H. Porter of New York have thrown much light on the subject of rheumatism, and certainly the present case points to rheumatic complications as the outcome of defective assimilation,—an important factor in its production. Thus the chemical laboratory of the human system becomes disturbed, resulting in false products, enabling us to establish a connecting link between even perityphlitis and rheumatism. In the structure of the intestinal walls there is undoubtedly a large amount of fibrous tissue, just as in the fascia and the tendons of the joints, and it is reasonable to suppose that these structures should be influenced in the same manner. Assuming that the case under consideration was even quasi-rheumatic in its character, it affords one more illustration as to the importance of giving due consideration to the line of action embraced in medical or surgical treatment under like circumstances."

One of his most striking observations is the following one, which Sir James Grant is especially qualified to make, for Ottawa is not only the official residence of the Governor General, to whose family he is the attending physician, but it is also the greatest lumbering centre in Canada, and Sir James has practised there for at least 40 years. "After noting," he says "the life history of many thousands of our lumbermen I have been amazed at the few attacked by rheumatism. Bread, pork and strong tea constitute their chief articles of diet, and the general inference is that the tea enables them to digest the pork with remarkable comfort, and certainly after a hard winter's work they return home well nourished and healthy in every particular." How can we explain this apparent anomaly? These men pass six or eight months of winter in the forests about the head waters, of the Ottawa river, very near the latitude of Hudson Bay; and although the cold is intense, and they are out in it from daylight to dark, still, rheumatism is almost unknown among them. If cold would cause rheumatism, then every lumberman ought to have it.

For us the explanation is quite clear: they have nothing in their blood to make the little sharp pointed crystals of uric acid out of, for to these latter is due the severe pain of articular and the dull pain of muscular rheumatism. Uric acid crystals cannot be made without an immense surplus of nitrogen in the blood, for if there is just enough nitrogen for the quantity of work done and oxygen inspired, all the nitrogen will be converted into urea. These lumbermen perform the hardest kind of muscular work, and yet they consume less nitrogen than a city clerk who is carried to his office in the morning, breathes the smallest quantity of bad air necessary to sustain life all day, and is carried home again at night. The lumberman on the one hand consumes large quantities of hydrocarbons in the shape of starch and fat, but very little nitrogen, for the fat pork contains almost none, the main supply being found in the gluten of the bread. He has no milk for his tea and he never tastes cheese. His luxuries are dried apples and molasses, and in some cases baked beans which mostly consist of starch. As Sir James Grant says, these facts point to the importance of simplicity of diet. Our progenitors frequently attained the age of three-score and ten, nourished by grain ground between two stones." To us rheumatism is a disease of diet, not of climate, and we are therefore neither surprised at the immunity from it of the lumberman, as observed by Sir James Grant, nor do we expect anything else but rheumatism to result for the man of sedentary occupation deprived of sufficient oxygen who gorges himself with meat and milk and cheese three times a day. It would be interesting to hear from some of our confrères practising in other and distant sections of the country, down South for instance, where the negro lives largely on hog and hominy, whether he enjoys the same freedom from rheumatism as does the wood chopper in the ice-bound forests of the far North. We have always been astonished at the treatment of rheumatism practised by our leading hospital physicians in this city, who, with the absolute control of the patient's diet in their own hands, deliberately place the suffering rheumatic on an almost exclusively nitrogen diet, as found in the cheese of two quarts of milk a day. No wonder the urine continues to be high colored and loaded with uric acid and

urates, and that he takes an average of six weeks to be cured. To add insult to injury, as it were, he is by some deprived of water. We trust, for the sake of the sufferers, that these lines may lead the physicians to put them on an exclusive hydrocarbon diet, with an abundance of water. When a few days with or without the aid of salicylate of soda or bicarbonate of potash the sharp little uric acid crystals will soon be dissolved out of the blood, and the patient will be cured.

Lest any may say that cold certainly has something to do with the disease, we must of course admit that given a blood liquid at a temperature of 100 degrees F, super-saturated with a given solid, this solid will be precipitated in a shoulder or hand or knee joint, if the temperature of the latter should fall to ninety degrees. But when the blood is free from uric acid there is nothing to be precipitated in the joints, no matter how cold they become.

IMPERIAL HONORS FOR THE CANADIAN MEDICAL PROFESSION.

When we glance over the list of Canadians who have received imperial honors, we cannot fail to be struck with the small number of physicians in comparison with the lawyers and politicians, a condition of things very different from that which exists in Great Britain and Ireland. There are at present more than five thousand physicians practising in Canada, nearly every one of whom has more than once performed an act of heroism, although it may have been unnoticed and unrecorded in the book of fame, but none the less the equal of any deed of valor on the field of battle. Of these many have reached a high degree of eminence, and some have become celebrated not only throughout our own land but even throughout Europe. Apart from that, the profession as a whole stands high throughout the world. And yet so far but one Canadian physician as such has ever received an imperial honor. Dr. Taché and Dr. Tupper, it is true, were knighted, but that was for political services and not as medical men. Many people attach but slight importance to these distinctions, but so long as they are conferred somewhat lavishly upon judges and lawyers, we must protest against this continued slight to a profession which, it cannot be denied, renders services which are in-

finitely greater. These distinctions, moreover, are the means of drawing more closely the bonds of affection which bind the various parts of the empire together. Neither does the giving of them when done with discretion impoverish the royal source whence they flow. We attribute this apparent neglect to the well-known self-negation of the members of our profession whenever its interests are concerned; this is evidenced by the unbounded charity and unselfish devotion of the medical man often in the face of the basest ingratitude. Lawyers seldom give their services day after day without the hope of pecuniary reward, and yet when a lawyer reaches a certain position in his profession on the bench he receives the honor of knighthood as a matter of course. The medical profession of Canada has long considered this lack of appreciation as a slight as well as an injustice, and we think it is now time for it to ask whether it should not at least receive the recognition which it deserves and which it receives elsewhere.

THYROID GLANDS AS MEDICINE.

We see in a recent number of the *Medical Press and Circular* that thyroid glands are supposed to be of such value in several diseases, notably myxoedema and psoriasis, that the butchers have put up the price. Even a physician, who is suffering from psoriasis, writes to the above journal to know whether the thyroid of any animal would do as well as that of the sheep.

It sounds more like witchcraft than nineteenth century science to see such evidences of credulity as are witnessed every day by the vaunting of different parts of animals for the cure of special diseases. We smile when we read the fashionable prescriptions of five thousand years ago, which include such articles as parts of a dog's foot, legs of a black spider, skin of a frog, etc.; but are we really very much in advance of our ancestors when we gravely eat "a ragged bit of flesh like liver, about half the size of a rabbit's ear," as the writer above referred to describes it, with the firm belief that it is going to cure a case of inveterate psoriasis? If people with psoriasis would pay more attention to their diet, eat less meat, drink more water and breathe

more good air, they would be more likely to be cured than if they ate an unlimited quantity of thyroid glands.

BOOK NOTICES.

LE MÉDECIN DE LA FAMILLE, World Publishing Company, Guelph, Canada, 1893.

Is the title of a new work just issued, which is the French edition of that excellent and reliable family medical book, *The Practical Home Physician*. The newly revised edition of the latter stands at the head of all similar works. "*Le Médecin de la Famille*" in typography, paper and binding presents a superior appearance to its English prototype. The text in both the English and French editions is correct in style and intelligible to every reader. New contributions appear from the pens of Dr. Sévérin Lachapelle and Dr. L. E. Fortier of our City, members of the Medical Faculty of Laval University.

The work is well called not only the *Home Physician*, but an *Encyclopædia of Medicine and of Hygiene*, public and private. It is a large volume of over 1300 pages, profusely illustrated with about 230 engravings and colored plates. The manikins of the head and of the body, and the other colored anatomical plates are exceedingly good, and interesting to the medical practitioner as well as to the general reader. The various subjects treated of are very numerous, but the exhaustive and complete Indexes enable you quickly to find any particular matter desired.

Everyone should have a general knowledge of Anatomy and Physiology, of the laws of health, of the diseases and accidents commonly met with, and the remedies usually applied. The intelligent patient could thereby better appreciate the importance of the science of medicine, and could better assist the physician in his practice.

In the work before us a vast amount of useful information about Hygiene in its application to our daily life is set forth in about 100 pages, which should be read and studied by every household. To be forewarned is to be forearmed. The knowledge herein given as to the various diseases, their causes, symptoms and treatment, including most excellent prescriptions, is such that the intelligent reader may better guard against disease, and when present can more successfully manage and control it.

The book is of great value to every household; the subscription price of \$4.75 or \$5.75, according to binding, brings it within the reach of all.

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Original Communications.

FELL METHOD—FORCED RESPIRATION.

**Report of cases resulting in the saving of twenty-eight human lives. History and a Plea for its general use in Hospital and Naval Practice.*

By GEO. E. FELL, M.D., F.R.M.S.
Ex-President American Microscopical Society, etc., Buffalo, N.Y.

It may be well to premise what I have to say by calling attention to the meaning of the term *Forced Respiration*. We understand by *artificial respiration* an artificial method of breathing for an individual; but since forced respiration has been used, with the remarkable results

*Read before Section General Medicine Pan-American Medical Congress, Washington, D.C., September 7th, 1893.

As this is the first report giving results of value on this subject presented outside of the members of home societies, and the knowledge of the subject being new to most of the members of the Congress, it is given in detail.

here recorded, it appears terms should be employed which would be distinctive, and some time ago I made a suggestion to the profession, which seems to have been quite universally adopted, to the following effect:

Auto-respiration: respiration by the individual for himself.

Deep respiration: forcible respiration by the individual himself.

Artificial respiration: This we understand to be that produced by the methods which have been suggested by Sylvester, Howard, Marshall Hall and others, in which movements of the limbs of the patients and pressure are made with the view of inflating the lungs. In many instances artificial respiration cannot be depended on to furnish a sufficient supply of air to the lungs, hence the need for the following.

Forced respiration: those measures by which air is forcibly passed into the lungs, according to the method first *systematically* used successfully in the saving of human life by the author.

The following cases are reported in detail simply to silence all doubters as to the serious aspect of each case, as in the intro-

duction of a new method into medical or surgical practice it is important to state cases fully. While some of these cases have been heretofore reported, the object of the paper would be rendered *nil* by mere reference to them, as the majority of the members of the Congress appear to know very little regarding the work accomplished by the methods described.

REPORT OF CASES.

CASE I.—Dr. FELL.

At 12.30 a.m., Saturday, July 23, 1887, I was called to attend Mr. Patrick Burns book-keeper, residing at No. 49 Morgan Street. I found the patient in a semi-conscious condition. His wife reported that he had been drinking heavily for a week past, and had been in the habit of using alcoholic liquors to excess for ten or twelve years. His present excesses induced him to try chloral to produce sleep, but finding this unsuccessful, he added twenty grains of morphine,* with the following result. According to his statement, he had taken the drug late on Friday afternoon, so that sufficient time had elapsed to permit complete absorption. When first discovered by his wife, he was breathing stertorously, and was with difficulty aroused. A draught of black coffee was given, which produced vomiting. On my arrival, I supplemented this with one of mustard, sodium chloride, and water, which effectually emptied the stomach. This produced no further effect, as the patient, left to himself, immediately passed into the deep, narcotic condition of opium poisoning. The pupils were markedly contracted, and it was evident a serious case was on hand. At this time I administered two cathartic pills which I had with me, and, at different times, minim doses of fluid extract of belladonna, sent for some atropia, and frequently administered the one-sixtieth of a grain hypodermically. To keep the patient awake, he was dressed, and two attendants walked him around the block in the cool, pure atmosphere of the early morning. At each round I examined him, and administered more atropia. The fourth or fifth round, when within one-half

block of the house, his limbs gave out, and while being tugged and jerked along, stertorous breathing began again; he was carried into the house, and laid on the floor, as I believed, to die. This was about 3.30 a.m. As the respiration failed, and the intervals between them lengthened, Sylvester's method of artificial respiration was employed, and kept up at intervals long after I had given up any hopes of the man's recovery and until I was thoroughly exhausted, and, further, without apparent benefit to the patient. In the meantime, I notified the family that the patient could not live.

At this juncture, Father Grant, of the Cathedral, appeared, and performed the last rites of the Catholic Church. At my suggestion, a bed was prepared in the front parlor of the house, and the patient laid upon it. From Mrs. Burns I obtained the data for the death certificate, which I confidently expected to file in the morning. I then took a last look at the patient, only to confirm my opinion that death was imminent, and then thought nothing more could be done. I was too thoroughly fatigued to think of forced respiration.

The pulse, before Father Grant came, had registered as high as 180, and before I left the house it could have been counted with difficulty: I considered it 200 or more. The respirations at 4 o'clock in the morning were five per minute, and, when I left the house for home, were intermittent, or with a long intermission followed by a few spasmodic respiratory efforts, and then apparent inanition for a time. I left for home a little after 5 o'clock in the morning, went to bed, and, after a sound sleep, was awakened by a call about 8 o'clock.

Dr. F. R. Campbell, who, through illness, had been unable to respond to an early summons from Mrs. Burns, called about 8 a.m., and finding Mr. Burns still alive, sent for me. I promptly repaired to the house, and indeed the patient was alive, with respirations, however, not more than one per minute, and the pulse with difficulty to be detected at the wrist. The extremities were quite cold; the face had assumed a cyanotic appearance; pupils still contracted. The doctor suggested that more atropia be given hypodermically, to which I assented. Together we repaired

* Mr. Burns stated on questioning that he had a powder two inches long, three-fourths of an inch wide, and about one-fourth of an inch thick, and that he took one-half of it; on measurement, found equal to grains xx.

to the drug store near by, had some powders prepared, and on our return were surprised to find the pupils *widely dilated*; it is needless to say no more atropia was administered. The sudden dilatation of the pupils was undoubtedly caused by the paralysis of the nerve centres controlling the iris, and is one of the frequent conditions in the last stages of opium-poisoning and indicative of general muscular paralysis; it is also known as the "dilatation of asphyxia."

Dr. Campbell made the remark: "We can do nothing more now." I agreed with him; but recalling a case of opium poisoning in a Mr. Dyke, which I had lost about a year previous, and my views then entertained, I mentioned to Dr. Campbell my conviction that Mr. Burns' life might be saved by opening the trachea placing a tube in it, and with suitable apparatus keeping up the respirations until the poison could be eliminated. I informed him that I had the apparatus used on dogs in the laboratory of the college at my residence near by. He offered to assist if I would make the experiment. With the aid of a gentleman stopping at the house, I obtained the apparatus. On my way I asked Mr. G. H. McMichael, a medical student, to assist in the operation.

Details of Operation.—The tracheal tube was quickly cleaned with a bi-chloride solution, and the operation of tracheotomy begun at 9 a.m. The hæmorrhage was overcome before incising the trachea. The greatest difficulty was experienced in passing a ligature* about the trachea, to prevent the air from passing up the throat. After this was accomplished we were ready to begin the respirations.

The blood passing from the incision was of a dark coffee color, indicating an extreme venous condition. Having been deeply occupied with the operation, I had not noticed the condition of the patient farther than to be able to state that no respiratory effort had been made for some time, and that the dark blue tinge of the face had materially increased.

We began the forced respirations. The lungs were inflated; not the slightest ex-

piratory effort was made, indicating not only paralysis of the muscles of respiration, but loss of elasticity in the lung tissue. No mention has been made of the difficulty encountered after the patient revived and began to move uneasily about. These movements loosened the tube in the trachea, and started hæmorrhage, and as at this time the patient was depending upon the forced respiration for his life, the result was made uncertain. This was the most serious time in the operation. In the house were boarding three soldiers of the U.S. recruiting service, who were quickly summoned, and performed efficient service in restraining the patient. At this time, and before the tracheal tube was inserted, considerable blood passed into the lungs; it was subsequently coughed out at the opening of the valve of the apparatus. At 12 o'clock mid-day, after the forced respirations had been under way two and one-half hours, the ordinary tracheotomy tube was substituted for the tube of the apparatus, and the patient allowed to breathe for himself.

This case (No. 1) was reported in a paper read at the Washington International Medical Congress in 1887, and some two months afterwards Case No. 2 occurred in Vienna. It will be noted that my first case had been fully published previously. communicated with Professor Boehm of the Vienna Hospital, August 14, 1888, requesting an account of the second case of forced respiration. November 11, 1888, I received from him the following account of the case, which coincided with my views previously expressed regarding the value of forced respiration.

CASE II.

Professor Doctor BOEHM, Vienna, Austria,
ALLEGEMEINES KRANKENHAUS,
VIENNA, Oct. 21, 1888.
HONORED CONFRÈRE,

Having just returned to Vienna, I take great pleasure in answering your favor of August 14th, 1888.

There has as yet been no authentic report published of the methods which were employed in rescuing Dr. Langer from death by morphia poisoning, I therefore give briefly the important points of the case.

Dr. Langer took, between the 10th and

* This is now obviated by placing a ring on the tracheotomy tube. The face mask will, however, take the place of tracheotomy or intubation in the great majority of cases.

20th of September 1887 (nearly two months after Dr. Fell's first operation), six decigrammes (8.24 grains) of morphia dissolved in water. As his servant's attempt to awaken him in the morning was fruitless, a physician from the hospital was immediately called in, and he diagnosed morphia narcotism.

The pulse was very small and intermittent, respiration had nearly ceased, the number about five per minute. The pupils were contracted to the size of a pin's head and insensible to light; corneal reflex absent; deep coma; briefly, a typical case of narcotism by morphia.

The attempts to save the patient's life were now made.

The stomach was emptied of its contents and rinsed out with black coffee. This was followed by injections of ether, both of which were followed by apparent good results. After the respirations had increased to seven per minute, the patient was removed to the Royal Hospital, at which place artificial respiration was kept up from 8 a.m. until 12.30 p.m. As it was now apparent that artificial respiration was not sufficient to restore normal breathing, tracheotomy was performed. A canula connected with a bellows was introduced, and "forced respiration" (künstlich Luft eingeblasen) kept up for three or four hours. At 5 p.m. the use of the bellows could be dispensed with, and our attention entirely devoted to watching the natural respiration.

The attempts which the patient made to breathe for himself continued to increase in number, and the next morning he became conscious. Our subsequent treatment consisted in simply caring for the wound and in elevating and enlivening the much depressed spirits of the patient.

CASE III.—Dr. FELL.

Mr. J. A. V., aged 43, took two ounces of laudanum and some chloral about 9 or 10 p.m., Saturday, December 10, 1887. About midnight his wife heard him breathing heavily, and tried unsuccessfully to arouse him, and sent for a physician. Dr. Lawrence G. Hanley, of the Emergency Hospital, was the first to respond to the call, and was shortly thereafter followed by Dr. Jacob Goldberg.* The condition of the patient

at this time, 1.15 a.m., indicated that a large dose of some powerful narcotic had been taken. Breathing was stertorous; pulse, 128; respirations, 6 per min.; and pupils contracted. At 1.40 a.m., Saturday morning, I was called, and found that the physicians were employing Sylvester's method of artificial respiration. Assuming, at their request, entire charge of the case, I had the patient placed upon a mattress on the dining-room table.

2.20 a.m.—The natural respirations ceased, or would last but a short time without the aid of the artificial respirations. Pulse, 72 to 84, indicating satisfactory oxygenation of the blood; however, the notes taken at the time show that the natural respiratory efforts were so irregular and deficient that it was difficult to count them.†

The inefficient character of the natural respirations, even when supplemented with the artificial method of Sylvester, was evidenced by the gradually marked increase of cyanosis. Previous to this, when noticing the first good results of the artificial respiration in this case, I informed the physicians that this would be a good time to effectually answer those who believe that artificial respiration would accomplish as much as forced respiration in cases of deep narcosis from poisons which act upon the respiratory centres. I informed them that if the life of the patient could be saved by artificial respiration, or by any other known means, my apparatus adapted to man should not be used. It was evident that the artificial respirations were doing little good, growing less and less efficient.

2.30 a.m.—Natural respirations, seven per minute. 2.40 a.m.—Natural respirations, stertorous, twelve per minute, but so "shallow" that little good was effected by them. 3.25 a.m.—Respirations failed. Owing to evident signs of heart failure, it was considered by all the physicians present that the life of the patient demanded the application of forced respiration. Time was given to demonstrate beyond question the

†This case is reported from full notes taken during its progress by the different physicians present.

This was the first case in which Dr. Fell's apparatus for use on man was used. Respiration was kept up for 14½ hours, which could not have been done under conditions existing with apparatus used in first case.

*Dr. Samuel Goldberg was present later in the case; also a number of medical students.

uselessness of the artificial respiration, until it was feared that the patient might succumb before the forced respirations could be applied. 3.40 a.m.—Operation of tracheotomy begun. Blood venous. Dr. Hanley remarked at the time that it was "ebony" colored." 4.05 a.m.—*Forced respirations* begun. In a short time the pulse became stronger and was reduced to 78 per minute. 5.30 a.m.—Pulse 102. 5.45 a.m.—Pulse 64. 6.25 a.m.—The patient, *up to this time insensible*, opened his eyes, stared in a half dazed manner, and raised his head above the pillow. He recognized Dr. Goldberg (by voice only, as afterwards stated), and, in answer to inquiries, stated that he had taken twenty grains of chloral with some stimulant. This was found to be untrue. 6.45 a.m.—First noted that when forced respiration is discontinued, not the slightest attempt at breathing is made by the patient, even when the cyanotic condition is extreme.

During the progress of the case water was frequently swallowed by the patient. In one or two instances the forced respirations were unintentionally kept up when the patient was swallowing. The glottis being opened at this time, water entered the lungs, and was subsequently coughed up and passed out of the valve of the apparatus.*

7.00 a.m.—Pulse 96. 8.15 a.m.—Pulse 108. It was found that the patient could breathe for himself, but only for a short time, and forced respirations had to be continually kept up. 9.00 a.m.—The trachea tube not being secured tightly in the trachea, permitted quite an amount of blood to pass into the lungs and the air to pass upward into the mouth, so that the lungs were not thoroughly inflated at each inspiration. This blood gurgled ominously at each respiration. With a curved needle encircling the trachea, another ligature was passed and tightened about the trachea and tube, as the rings to the tracheotomy tube had not been devised or value of face mask known at this time. The forced inspirations following markedly improved the action of the heart.

*This indicates, in part, the value of the application of the apparatus in cases of drowning; also that it would be objectionable to pass a tube into the larynx by way of the buccal cavity when the elimination of poison is important, as liquid, in swallowing, would be apt to enter the lungs. It indicates the value of the face mask in drowning. See later pages.

As the poison became more completely incorporated with the blood, the effect of even a short stoppage of the forced respirations was indicated in a weaker action of the heart. At one time the rubber tube connecting the respiratory or air valve with the trachea tube became almost completely clogged with clotted blood. It was removed and thoroughly cleaned, as was also the inner tube of the tracheotomy tube a number of times. Digitalis fluid extract, in half minim doses, was given a number of times, also atropia, one-eighth grain at one time and smaller doses also. No dilatation of the pupil took place at this time.

The question of keeping up the forced respiration when there seemed to be no prospect of the ultimate recovery of the patient was seriously discussed. I was urged to discontinue the respirations on account of the case being considered hopeless. At one time I stopped the respirations for a longer period than usual, thoroughly discouraged and tired. The man was not dead, and we had to keep it up.

11.30 a.m.—Drank some brandy and water; vomited. As the patient had at this time been given up to die, his family were permitted to see him and "bid him good-bye."

12.00—Pulse 117. Grain 1-75 of atropia administered hypodermically. 12.10 p.m. Face cyanosed; efforts to breathe made; twitching of toes; respirations not supplying air enough. 12.40 p.m.—Owing to a solution of atropia being placed on or in the eyes, the pupils gradually dilated.* Pulse 126. 12.55 p.m.—The patient, who had become unconscious for a short time, regained consciousness and drank some water. Pulse, after drinking, 168, weak and flickering. After this, more air was administered by giving three movements of the bellows for the inspiration instead of two, as formerly.

3.20 p.m.—Temperature 100.5° Fahr. 6.00 p.m.—Pulse 120.

After nearly fifteen hours of forced respiration, at 6.15 p.m. the patient began breathing for himself. Respiration, fourteen per minute. This lasted fifty-five minutes, when the respirations lowering to eight per

*This may not have been judicious, but it was done under the belief of all the physicians present that the patient could not recover.

minute, *at the request of the patient* the forced respirations were again proceeded with.

9.15 p.m.—Pulse 120; respirations, fourteen, natural; *becoming shallow, they were supplemented* with the forced respirations.

11.30 p.m.—Pulse 100.

December 11, 1887, 12 midnight. It is now twenty hours since the forced respirations were begun.

1.05 a.m.—Pulse 128, strong. The patient has been breathing for himself for the last four hours, *but has now requested that the forced respirations be used for a time*. Since then he has breathed spontaneously. For over fourteen hours he could not be left to breathe voluntarily, even for half a minute, without evident discomfort and danger, viz., between 4.00 a.m. and 6.30 p.m. of the 10th inst., *and for nearly seven hours thereafter* the natural had to be supplemented by the forced respirations.

4.00 a.m.—Pulse 117. Although oleum tiglli to gtt. v. has been administered, no movement of the bowels has taken place. Essence of pepsin, beef peptonoids, milk and spiritus frumenti given a number of times. Enemata of water, soap and water, with oil and stimulants, given also.

Every six or eight hours the catheter was used. Up to 12.30 a.m., 11th inst., and some twenty-seven hours after two ounces of laudanum had been taken, not more than six ounces of urine had been drawn from the patient. This large amount of poison (two ounces) had been going the round of the circulation, producing its maximum effect on the whole system. The left arm was partially paralyzed and the brain congested.

Between 3.00 and 4.00 a.m., 11th inst., bowels moved for the first time. At 7.00 a.m. the patient left the table without assistance, to use stool. At 9.00 a.m. the tracheotomy tube was removed, wound plugged antiseptically, and patient put to bed. Although very seriously ill for three or four days following, no serious lung difficulty set in, and the patient has fully recovered.

CASE IV.—Dr. FELL.

The following case I do not hesitate to pronounce one of the most remarkable in the annals of Medicine:

Julius Baere, a resident of Lockport, N.Y., aged forty-five years, of a nervous

temperament, a naturally lively disposition was subject, through ill health and mental suffering, to spells of melancholy, which were aggravated by several serious reverses in business and other matters which need not be stated. He was of medium height, weighed about one hundred and thirty-five pounds, and was in poor condition to withstand the terrible physical ordeal to which he was to be subjected. January 24, 1888, he left home for Buffalo, having previously obtained a two-ounce vial of laudanum. On his arrival at Buffalo he put up at the Continental Hotel, complained of not feeling well, ate very little supper, and retired to his room. This was the last time he was seen until he was found next day at three o'clock p.m., to all appearances, dead (so reported).

The first physician to arrive at the hotel was Dr. Luther Phillips, who, on examination, gave up the patient. The physicians from the Fitch Emergency Hospital, Dr. George E. Penrose in charge, next appeared, and administered brandy and ether subcutaneously. Drs. William A. Hoddick, Carlton R. Jewett, Hermon Mickle, John D. Flagg, and several others subsequently were present during the progress of the case, and without exception gave it up as hopeless. Coroner Kenny was summoned, and, before leaving his office, telephoned to Undertaker Rodney to go to the hotel with a coffin, which he did.

The two-ounce vial of laudanum was empty; the throat of the patient was cut, severing the trachea and anterior jugular vein; it was found also that the left arm had been incised with the razor so as to clearly expose, without opening, the basilic vein. At this time the patient was making a faint gasp once in about ten seconds, and breathing through the hole he had made in the trachea.

On arrival at 5 p.m., Jan. 25, I found the corridor and bed-room filled with physicians and laymen, the patient lying on the right side of the bed. Hæmorrhage extensive;—as an indication, it may be mentioned that the right side of the over- and undershirt, the shirt-sleeves to the wrists, right end of pillow, and side of mattress were literally soaked with coagulated blood. A tall slop-jar at head of bed was one-half full of blood and water. The pupils contracted, pallor of face and

an occasional gasp, only indicated that life existed. No pulse at wrist, and fluttering movements of heart on auscultation; skin cold; patient had a cadaverous appearance, and, of course, was unconscious. The physicians had ceased their efforts at resuscitation. Dr. William A. Hoddick reported the condition of the patient at time of my arrival as follows:—"Skin cold, cadaverous appearance, lips colorless, the pallor of death apparent, extremities cold, pulse almost imperceptible, only a slight fluttering of the heart could be discovered, eyes insensible to light, pupils completely contracted, but little blood in the body."

My first marked interest was in noting that the incision in the trachea was just suited to my tracheotomy tube, which I immediately inserted, causing a reflex inspiratory spasm. Within one minute from the time I entered the room I was practising forced respiration upon the patient.

Within a few minutes the cyanotic condition slowly passed from the face. Forced respiration being kept up steadily, in about three hours, at 8 o'clock p.m., the pulse could be detected at the wrist and the patient showed signs of consciousness. The bowels moved freely, great quantities of stercoraceous matter passing from the patient. At 9 p.m. the patient became fully conscious of his surroundings and condition. Contraction of the pupils continued, showing continued effect of the narcotic. When forced respiration was discontinued, an occasional attempt at respiration was made; at no time, however, during the first ten hours while the instrument was in steady use, would he make more than two or three attempts at respiration without it.

As he gradually became weaker from continued movements of the bowels and frequent attacks of vomiting, attempts were made to nourish him. The most easily assimilable substances were rejected. Milk and lime water, peptonized liquids, liquid and powdered peptonoids, iced champagne, brandy, etc., were used, but the stomach would not retain them; vomiting continued; the patient approached the stage of collapse; brandy hypodermically was frequently given without marked benefit. The action of the heart was of a bounding, uncertain character undoubtedly produced

by a deficiency of blood upon which to work. At one time stercoraceous vomiting set in,—in fact, a most deplorable condition existed. It was decided to attempt the introduction into the circulation of a saline fluid by the transfusion method. I repaired to the Fitch Accident Hospital, secured the apparatus and the assistance of Dr. Penrose, who with Dr. Mickle opened the conveniently exposed basilic vein of the left arm, introduced the transfusion canula, and allowed about six ounces of the fluid to slowly mingle with the circulation.*

No apparent change in the condition of the patient was noticed from this injection; the forced respiration was continually kept up, and the life of the patient depended upon it, as all other means taken would have proved futile without it. At this time no pulse at the wrist could be detected for fifteen minutes at a time: the carotid pulse could be made out at all times. Continuing the work through the night with the aid of my class of students from the college and a number of physicians, toward early morning the opinion still prevailed that the case was hopeless. The wife and daughter of Mr. Baere were called in to see him. Their presence, with that of Mrs. A., the wife of the hotel proprietor, seemed to cheer him up. Mrs. A. urged me to discontinue the work of resuscitation, on the plea, shared by all, that it was only prolonging the misery of the patient, and the case was hopeless. I urged, as in my second case, that a physician was not justified in giving up until life became extinct, and kept the forced respirations under way. The unsuccessful attempts at feeding by the stomach had been discontinued for a time after the stercoraceous vomiting. The nourishment of the patient, however, had become a matter for serious consideration, and, at the suggestion of Dr. C. R. Jewett, half teaspoonful doses of Cibil's Fluid Extract of Beef, diluted with a little carbonic acid water were administered. This was the first substance to be retained; the dose was repeated, increased, and at last the patient showed signs of improvement.

Some twelve hours after we had been at work, the satisfactory result of forced res-

*The formula for this fluid was as follows: R.—Sod. carb., grs. iij; Sod. chloride, grs. xvij; Aquae $\bar{\text{f}}$ vij. Misce. Inject one to six ounces.

piration, as a means of breathing for a human being, was demonstrated in the passive condition of the patient. During the forenoon the effect of the narcotic gradually passed away, the pupils dilating more and more. The condition of the patient was such, however, that he could not breathe for himself for any time without evident discomfort and risk. The forced respiration had to be kept up. During the day, many physicians and laymen visited the room and witnessed the steady action of the apparatus. Noon passed, and yet the patient could not be left to breathe for himself. At 1.30 p.m., however, nearly one full day (twenty and one half hours) after the forced respiration was begun, Mr. Baere began to breathe for himself. In a few hours he became so fatigued that he begged to have the forced respirations resumed, and the little instrument was again called into action, quieting and easing the patient. Several times this was done before he continuously breathed for himself, thus making the use of the instrument to cover more than a day before it was laid aside for good. Towards evening the temperature of the room in which the patient lay became so cold that he was transferred to a warmer and better location. Under careful treatment he rapidly improved, but complained of constant pain in his chest. It was feared that pneumonia would set in, as the respirations were somewhat rapid. It did not, and there was nothing to indicate that the lungs were unfavorably affected by the long continued forced respiration. Within five days after the operation, the patient was transferred to the Hospital of the Sisters of Charity, and his temperature was normal and pulse 96. The pain in the chest was found to have been caused by the hypodermic injections, given at a time when the circulation was so inactive in the surface capillaries that gangrene was produced by them. The poor fellow suffered for months after the operation from this cause. The greater portion of the left breast sloughed down to the ribs, and in the right thigh an abscess, produced from the same cause, appeared, which, when first opened, on the 20th of February, gave out a pint of pus. There is, then, a possibility of overdoing the hypodermic treatment where a large quantity of blood has been lost. I do not hesitate

to state my belief that Mr. Baere would have been in condition to leave the hospital within two weeks of the date of the operation, had it not been for the result produced by hypodermic medication. At this time following it, his throat was closed up and in good condition. He was able to walk about and do light work long before he left the hospital, and when he did so was in better physical condition than he had been for years.

Regarding my first three cases, there is no question as to the outcome, had any other means been tried to save them. Forced respiration alone is to be credited with the saving of these lives to future usefulness. To demonstrate beyond question the thoroughness of the work accomplished, at my request Messrs. Burns, Van Orden and Baere, all in good health, appeared before the Fourth District Branch of the New York State Medical Association, at its meeting in Buffalo, May 8th, 1888, where I gave a preliminary report upon the subject of this paper. To the insurance companies this work was a boon, as it saved to them some \$23,000 life insurance. But how trivial is this compared to the saving of human life and the future possibilities of this operation!

CASE V.—Dr. FELL.

This case is taken from the records of the Emergency Hospital, where it occurred, and is reported by the house physician, Dr. J. F. Mulherin.

Hospital Case No. 1,000.—Peter Church, aged 80, U.S., admitted May 18, 1888, 8.30 p.m. This man was brought in ambulance from 126 Mohawk street, where he was found in a dazed condition. Patient had stated to friends at this place that he had taken laudanum; empty bottle shown to ambulance attendant. On admission, patient unconscious, pulse full and strong, 84 per minute; respirations about 10 per minute; pupils contracted down to pin points.

Emetics administered; atropia, gr. 1-100, hypodermically and catheterization at 8.35 p.m.; repetition of atropia, gr. 1-100, in ten minutes. Artificial respiration by Sylvester's method at 9 p.m.; heart failed, and respirations about three or four per minute; respirations gradually became imperceptible; atropia, gr. 1-100; also

brandy and digitalis given hypodermically.

At 11 p.m. Dr. Fell was called, and tracheotomy with forced respiration determined upon. Present, Drs. Fell, Heath, Mickle and Mulherin. Trachea opened and tubes inserted by Dr. Heath at 10.25 p.m.; forced respiration commenced; patient seemed to revive; pulse became fuller, was irregular; color in face returned, and at 12.15 a.m. patient first opened his eyes. Stomach tube introduced to wash out contents, at 12.30. Injection of soap-suds per rectum, 1 a.m. This found inefficient, and gtt. ii. olei tigllii administered at 1.15; urine again drawn at 1.45. Signs of returning consciousness at 2.30; patient opened eyes and lifted hand. Between 2 and 3 a.m., condition good, pulse full and regular; vigorous slapping of face and yelling in ears elicited no response; 3 a.m., pulse 90; 3.45 a.m., patient suddenly raised his arms and attempted to speak. At this time the forced respiration was discontinued, but patient refused to breathe. At no time since the operation was begun has the patient been cyanotic. At 4.15, patient again threw his arms about, and, in answer to a question, said he was "awake." Hæmostatic forceps removed from neck after vessels were ligated, slight hæmorrhage. Respiration continued; 5 a.m., patient opened eyes, became somewhat convulsed, and again relapsed into a state of unconsciousness; two ounces of nitre given by mouth, and stimulants through the air-heating section of the apparatus. At 5.15 a.m., bellows working at the rate of 108 movements per minute, patient by this means receiving 21 respirations to the minute; pulse good and color of face normal; 5.20, air-heating apparatus again used; 5.40, heated air discontinued; 5.50, urine drawn; 7.00 a.m., face and hands more cyanotic, pulse 90, temperature 99.5° Fahr.; 7.30, pulse growing weaker, patient somewhat cyanosed; 8.20, failing; 9.00 a.m., pulse 88, heart very weak; 9.30, pulse varies, becoming alternately strong and weak. At no time during the operation has the patient been able to breathe of his own accord. At 10.00 a.m., pulse 90, temperature 98° ; peptonized beef extract given per rectum. 12.45 p.m., patient made a few convulsive efforts to breathe, again relapsed into un-

consciousness, pulse becoming very weak and feeble; patient grows pale; skin cold. Complete cessation of pulse at 1.10 p.m. May 19; patient dead; forced respiration discontinued, and instrument removed at 1.13 p.m.

In this case the patient was kept alive by the forced respiration for fourteen hours and ten minutes; and it is reasonable to infer that his life was prolonged at least twelve hours longer than it could have been done by any other methods known.

CASE VI.—Dr. FELL.

May 26, 1888, I was called to the residence of H.C.F., Delaware avenue, Buffalo, and found his eighteen-day-old infant held by a nurse in a tub of warm water; body deeply cyanosed; an occasional gasp indicated that life still existed; pupils contracted; reflexes absent. Inquiry elicited the following history: a homœopathic practitioner of Buffalo had been called to prescribe for the child. He took out of his case a powder containing morphia sulphat, gr. j. By some psychological freak, he directed the nurse to give it to the babe, thinking he had replaced it in his case and handed her a harmless powder in its stead. Some time after the physician had left the house, the nurse called the child's mother's attention to the superscription on the powder,—morph. sulph. gr. j.—and with the probable belief that all homœopathic (?) medicine was harmless, the fatal drug was placed in the mouth of the little one at 12.45 p.m., and all absorbed. At 2.30 p.m. the child was discovered in convulsions, a physician Dr. A. M. Curtis, summoned, and the usual steps taken to resuscitate. When it is considered that the quantity of morphine taken was equivalent to about seventy doses for an infant of this age, it appears a hopeless task. From 2.30 until about 4.30 p.m. artificial respiration was used with little benefit. It was nearly 5.00 p.m. before I arrived at the house, and with difficulty in one so young, only to be appreciated by experience, I made tracheotomy. Previous to the trachea being reached, respirations would cease; but by placing my mouth over the nose and mouth of the babe, and forcibly blowing, the lungs were inflated, resulting in keeping up the action of the heart until the

trachea could be irritated. Irritation of the trachea, followed by incision, seemed to stimulate the respiratory centres for some time, but as the case was approaching a crisis, at last a small-sized catheter, $\frac{1}{8}$ inch external diameter, was used to make connection with the trachea, and by an increasing series of larger tubes, this was connected with the tube from the air-valve of the forced respiration apparatus. About 6 p.m. the forced respiration was begun, Dr. A. M. Curtis giving valued assistance in holding the small tube in the trachea. In fifteen to twenty minutes the cyanotic condition passed away, the child steadily improved for an hour, when the cyanosis returned. Examination revealed that the tube had slipped out of the trachea. After replacing, forced respirations were continued, and natural hue of health returned. The pulse improved, ranging for a time at 134 per minute. Drs. W. H. Heath and Geo. W. T. Lewis were called in to assist. Natural movements of the limbs returned, reflexes again established, the limbs moved, bowels acted freely, and eight or ten natural respirations were taken. Hopes for recovery were almost entertained from the remarkable changes produced by the forced respirations, but at 9.30 p.m. the little heart ceased beating.

In this case, no less than in those preceding, the result of forced respirations was remarkable. The infant, only eighteen days old, had for five and one quarter hours been subjected to the influence of one grain of morphine, in an asphyxiated condition for at least four and one-quarter hours, thus weakening the muscular tissue of the body. Under forced respiration life was retained, with the results mentioned, for three and one-half hours. I hazard the opinion that if forced respiration had been instituted within the first two hours, the results might have proved different.

June 18, 1888, I was called to attempt the resuscitation of a still-born babe. No heart action could be detected. A catheter was placed in the trachea by intubation method, connected with the forced respirator, lungs were inflated and expiration produced by pressure; no results. The child was undoubtedly dead before the forced respiration was begun. The

feasibility of the operation was demonstrated.

CASE VII.—Dr. FELL.

Frederick Ryers was found in front of an "opium joint," and taken to the "Emergency" hospital. His condition was so serious that the house physician sent for me. Cyanosis was marked, absence of reflexes, contraction of pupils, spasmodic respiration, doing little good. Tracheotomy made. Blood venous. Forced respiration was kept up, calling the heart into positive action, and causing the return of the pulse at both wrists, and a change from the venous to the arterial state of the blood at the wound in the neck. Reflex action could not be induced; the brain tissue did not respond to the revived circulation, and the pupils continued dilated. The action of the heart kept up for about an hour before final stoppage. A few days previously I had had at the same hospital a case in which the patient was saved without resort to forced respiration, although the indications were such as almost to warrant the operation. I was preparing to operate, when, a slight improvement being noticed, I desisted, and the patient recovered without requiring tracheotomy. Influenced by this case I waited too long with Mr. Ryers, until, in fact, the pulse was lost at both wrists, and, on auscultation, no action of the heart could be detected.

CASE VIII.—Dr. FELL.

I was called to attend a case of "still-birth" by Dr. Geo. R. Stearns. Face presentation. Application of forceps in delivery had ruptured brain tissue, producing, as was subsequently ascertained, sufficient hæmorrhage to prevent resuscitation. Previous to my arrival, the nurse had kept up the action of the heart by mouth to mouth insufflation. Cyanosis was extreme. As I did not wish to attempt tracheotomy, for a time I resorted to the same means.

This not giving satisfactory result, the tube connecting with the air control valve of the apparatus was placed in the mouth of the infant, the nostrils closed, and the lips compressed about the tube, and forced respiration instituted. The change was immediate. Cyanosis passed away, the heart action became good and full, reflexes of the

lower limbs were induced, but no change in brain could be produced. After four or five hours work it was evident that the brain was so injured that it was useless to proceed further, and forced respiration was discontinued.

The value of this case is, that it demonstrates that forced respiration may be carried on without tracheotomy, showing that in many cases it could be applied through the medium of a suitable mouth-piece, and again illustrating its marked value over artificial respiration which would have proved entirely useless. It was the experience obtained in this case that enabled me to hold the life of my next patient until forced respiration could be systematically applied, and by which the patient was saved.

CASE IX.—Dr. FELL.

June 21, 1889, I was called by Dr. J. S. Armstrong, about midnight, to attend Mr. S. F., a grocer, troubled with melancholia. Dr. C. C. Fredericks was called in to assist. The previous evening the patient had taken Tr. Opii ζ ii. Evidences of approaching death from the poison were noticeable. Patient placed on a table, and an incision for tracheotomy made. Blood in incision purple. Dr. Fredericks informed me the patient was dying, the pupils dilating (dilatation of asphyxia). The tube of the apparatus was placed in the mouth of the patient as in previous case, the lips tightly compressed about the tube, the nostrils closed, and forced respiration kept up for a short time. The lungs were inflated, the blood in the wound changed to arterial, and the pulse improved slightly. The tracheotomy was then proceeded with, but before its completion it became again necessary to inflate the lungs through the mouth. On the institution of forced respiration per tracheotomy tube, the cyanosis rapidly passed away, the pulse became stronger, and in about thirty minutes the patient became conscious. After about eleven hours of forced respiration, auto-respiration was established, and the patient made a good recovery.

CASE X.—Dr. FELL.

October 11th, 1889, this same patient took another two ounces of Tr. Opii, together with five to ten grains of morphia. With Dr. Armstrong I performed trache-

otomy over the wound of first operation, and after fourteen hours of forced respiration, the patient was again rescued and made a good recovery, the wound in the neck closing completely in eight days.

These two cases resulted in the preparation of the face mask, which marks an important era in the evolution of forced respiration, and brings the operation to that degree of simplicity that it may be readily utilized by physicians unwilling to make tracheotomy, and the crews of life-saving stations who can readily be instructed to use the method per face cup when it would be entirely impracticable without. The late Capt. D. P. Dobbins, inspector of life saving stations on the great lakes, was much impressed by the results of my method per tracheotomy, but admitted that it could not be put into operation by the crews at life-saving stations. Now, however, the method per face mask makes it *par excellence* the only method which should be in use at these stations.

CASE XI.—Dr. FELL.

A young woman had taken one or two ounces Tr. Opii. Artificial respiration failed. Forced respiration for four hours, with face mask, saved patient.

CASES XII., XIII., XIV.

Dr. C. R. Vanderburgh, Columbus, Ohio, reported three cases saved by face mask.

CASE XV.—Dr. FELL.

A woman had taken an uncertain amount of morphia,—a large amount, however, as was evident from the effect produced upon her. About midnight a physician was called, but refused to attend, so that she was under the influence of the narcotic all through the night, until about 10 o'clock the next morning. I was called at 9 a.m., and arrived at 9.30. I ascertained there was no pulse at either wrist, but on auscultation found the heart faintly acting, cyanosis deep. I then had her placed on a mattress in an adjoining room, and with the face-mask, air-control valve and the bellows, went to work. It was fully an hour and a half before the pulse at the wrist could be detected. The woman became conscious, sat up, and asked for a drink. In the middle of the afternoon Dr. Porter came in to witness the operation, and offered his assistance, which was

accepted. It may be stated, that when a person is very deeply narcotized with forced respiration, we may occasionally produce a conscious condition, but the patient will again pass under the influence of the narcotic, and become utterly unconscious. You may breathe for him for half an hour at a time, yet there will be no evidence of life except the action of the heart and the fact that the blood is supplied with oxygen. So this patient would occasionally become conscious. During one of these conscious periods, Dr. Porter, who had been standing in one corner of the room, came forward, and began to perform Sylvester's method of artificial respiration, with the object, I presume, of demonstrating that it would accomplish as much as what I was doing. He understood how to apply that method from previous experience. All watched the result with interest. In a little while the cyanotic condition began to appear along the face, gradually becoming deeper and deeper. I said: "Doctor, you see now just what the result is."

"Yes," he said, "there is no question about it."

We then renewed the forced respiration with the face-mask. In a short time the cyanotic condition disappeared, and the woman again became conscious. I kept up forced respiration with this woman until she revived again and began to be in quite a jovial condition, and, as I thought, was perfectly safe. Then Dr. Porter desired to try the Faradic battery, which I consented to, regarding the woman's condition as such that, were it again necessary, we could at any time rely upon the forced respiration again. I was anxious, of course, to report this as another case of life saved by forced respiration. After breathing some eight hours, and carrying the case through the most critical period, we called the Faradic battery into play. But what is the result of faradization in a case of that kind? Merely the stimulation of the heart at the expense of its energy. However weak the current may be, if you obtain any heart action it is of a tonic nature, and is secured at the expense of the energy of the heart muscle. What we need to look out for in such a case is to conserve the energy and the vitality of the heart muscle. In this case the result was, that in about three quarters of an hour

after the faradization began, the heart stopped beating, spasmodically. This case was lost through faradization.

CASE XVI.

Hospital case reported as saved by the Fell method. Particulars not obtained.

CASE XVII.—DR. FELL.

Sunday morning, March 1st, 1891, at 3.20 a.m., I was called to the residence of Dr. Harrington, on Franklin street, and there found a young lady who had taken a large dose—about 15 grains—of morphine. At 3 a.m., Mr. Harrington, sr., had noticed stertorous breathing. He arose, looked at the patient, but concluded it was nothing more than a very deep slumber. The condition continuing, however, he called Dr. Harrington, who examined the patient, finding her in a comatose condition, cyanotic, pupils markedly contracted, and a bottle of morphine on the table. She had written two or three letters which clearly indicated the cause of the trouble.

I immediately proceeded to forced respiration with the face-mask, which resulted in overcoming the cyanosis and producing an improvement in the heart action. We continued forced respiration with the face-mask until 6.30 a.m., when it was observed that the cyanosis was again increasing, and the condition of the patient growing more and more desperate. No evidences of consciousness were present. By shouting into the ear, ocular reflexes were noticed in a contracting of the orbicular muscles. There appeared to be no hope of recovery at this time.

With Dr. Harrington's assistance we made tracheotomy, and inserted the tracheotomy tube, as arranged for forced respiration, into the trachea. Connection was then made with the apparatus, and forced respiration kept up. The improvement on the employment of forced respiration by tracheotomy over that produced by the face-mask was evident. The chest movements were greater, and the results were more satisfactory in many respects. However, of so serious a nature was the condition of the patient at this time, that not one present expected other than a fatal termination. No pulse existed at either wrist; auscultation could detect no heart movement, either by Dr. Harrington, myself, or the students present. Two

conditions, however, appeared to indicate that life was not extinct: the pupils continued contracted, and cyanosis did not supervene. The glassy stare of the eyes was present, and outside of the two favorable conditions mentioned, it appeared that death could not be far off.

At this point Dr. Harrington's father made the remark, that if this young lady was made to live it would indeed be "a miracle." However, I kept up the forced respiration, saying that I would do so for a little while longer, "just for the fun of it." In a short time auscultation on the part of Dr. Harrington gave us the satisfactory information that the heart was beating. In the course of a few hours these reflexes were more and more marked, and consciousness supervened. Forced respiration was continued through the forenoon and until late in the afternoon, making some twelve to fourteen hours of continual forced respiration before the patient could be allowed to breathe for herself. She has made a good recovery. In this case artificial respiration would at no time have been of any avail to the patient.

CASE XVIII.—Dr. FELL.

Sunday, March 15th, 1891, at 11.30 a.m., I was called to attend Joseph Altieri. A prescription containing phenacetin, morphine, and cocaine in small quantity, had been prescribed by the attendant physician for neuralgia of the stomach. The patient had taken repeated doses, without regard to instructions upon the prescription, until a large poisonous dose of these very dangerous drugs had been taken. At 11.30 a.m., forced respiration with the face-mask was commenced, and quickly overcame the marked cyanosis, which was intensified undoubtedly by the phenacetin. With the face-mask, forced respiration was kept up all the afternoon, the patient at times becoming conscious. The cyanotic condition seemed, however, to increase, owing to the base of the tongue falling back and occluding the larynx. A ligature was placed through the tongue and the organ pulled well up, with the result that the lungs were more readily inflated.

In this case oxygen gas was administered in connection with the forced respiration apparatus, it being supplied in greater

or less quantities, as seemed to be desirable. At times the amount of air passing to the stomach and bowels was so great as to markedly distend them, thus interfering to a certain extent with the inflation of the lungs by the forced respiration, and indicating one of the difficulties to be met with in forced respiration with the face-mask. In the afternoon the patient became comatose, and responded very little to the respiratory work. During the evening it was evident that the patient was not progressing satisfactorily, the influences of the poisons being peculiar in their action, there not appearing to be any elimination of the drugs, although the catheter was used as often as was necessary, and the antidotes which seemed to be indicated, and stimulants, such as digitalis and alcohol, injected hypodermically. At 10 p.m., Sunday night, I made tracheotomy, and forced respiration was then kept up by the direct method. The result, as in the former case, indicated the very great readiness with which the method could be used in the inflation of the lungs; and the patient was apparently holding his own. I left for home at 11 p.m., trusting that the patient would be in good condition in the morning.

An army of students was present to assist in the work of respiration, and with Dr. Harrington they kept faithfully at work through the night, until 5.30 in the morning. At this time the patient was breathing with comparative ease, and the prospects looked encouraging. However, a spasmodic contraction of the stomach occurred; its contents were ejected with force. Every effort was made to prevent any of the vomited matter from passing into the lungs, but the spasm resulted, however, in the ceasing of the action of the heart, and the labor of eighteen hours was lost.

The necessity of something other than manual labor in the forcing of a column of air into the lungs was strongly demonstrated in this case. Although there were plenty of persons present—the students, and the relatives of the patient—who performed all the labor required, no one who has not witnessed a case of forced respiration can really appreciate the amount of energy expended in respiring for a human being, be it even so easy comparatively as

by the method used in forced respiration.

This is the first extended case in which oxygen gas was administered in conjunction with the forced respiration. The results were satisfactory, but the odds against which we were fighting—the combination of deadly drugs which had been taken—were too much for even an expectation that success would crown our efforts. With morphia alone in large quantity, I believe the patient would have been saved.

CASE XIX.—Dr. FELL.

The value of forced respiration as a tiding-over measure in various conditions was exemplified in the following case: An old lady, seventy-three years of age, had taken, through the carelessness of a druggist, a dose of aqueous solution of corrosive sublimate. Its influence on the nerve centres produced shock; cyanosis was present, and death, which seemed inevitable, would soon have ensued. Forced respiration with the face-mask, easily applied, toned up the system, respiration was much improved, and the patient lived about two days longer for the treatment.

CASE XX.

In the surgical clinic of Dr. Hal. C. Wyman, Detroit Emergency Hospital Reports, reported by Dr. Robert S. Linn under Fell's operation for morphine poisoning, etc., as follows:

"Miss C., æt. 21, had taken 20 grs. morphiæ sulph. about one hour before the ambulance was called. Her condition when brought to Emergency Hospital was critical. Pupils were much contracted, and did not respond to light. Respirations were only five a minute and pulse quite weak. The stomach was evacuated of its contents with stomach pump, and about one pint of strong coffee injected into it. About 16 oz. of urine were drawn from the bladder. A hypodermic injection of atropiæ sulph., grs. 1-60, was given, and artificial respiration performed without benefit. An incision $2\frac{1}{2}$ inches long was made in median line over the trachea, tracheotomy performed, forced respiration kept up for about three hours, and the life of the patient was saved."

CASE XXI.—Dr. FELL.

I was called by Dr. Eli H. Long to attend a case of opium narcosis in a lady seventy-eight years of age. She had taken a

large quantity of gum opium. Respirations shallow, fourteen per minute, pupils contracted, coma existing. Face-mask applied, and used about eleven hours, when tracheotomy was made, but too late to save the patient. Convulsions set in, and continued uninterruptedly until death ensued. A mistake was made in this case in not performing tracheotomy sooner. With the face-mask the cyanosis was not satisfactorily overcome. Extension of the head, which was used with success for some time, had finally no influence in raising the epiglottis. A ligature through the tongue, by which the base of the tongue was raised, worked better. The cerebral hemispheres were greatly congested. Free venesection would have been beneficial if performed in season. The indications for tracheotomy existed for some time before it was made.

CASE XXII.—Dr. FELL.

I am under obligations to Dr. Allen A. Jones, instructor in practice, Medical Department University of Buffalo, by whom I was called, for the following report of this case, in which the face-mask demonstrated again its great value in a typically appropriate case.

"About 4 o'clock on the afternoon of Thursday, October 8, 1891, I was hurriedly summoned to the house of a former patient, and found her lying on a sofa-unconscious, extremely cyanosed, her lips and ears being blue; her pupils were contracted almost to pin points, and her respiration was of the Cheyne-Stokes character, ceasing entirely for two or three full minutes, then coming with peculiar groanings and whistlings, which died away until respiration ceased.

"I had been told over the telephone that she had taken morphine, but I did not know how much.

"Her pulse was frequent and small, but yet of good strength when I first arrived. I sent for Dr. George E. Fell without delay, with instructions that he should bring his apparatus for performing forced artificial respiration.

"While awaiting his arrival, with the help of those about me, I succeeded in restoring some color to the lips by artificial respiration (Sylvester's method). The pulse grew weaker and weaker, and

the heart almost ceased beating before Dr. Fell arrived.

"It was impossible to give emetics per os, so we gave one-fifth of a grain of apomorphine hypodermically, as soon as Dr. Fell arrived. Then with the patient on the table we instituted forced respiration (by face mask).

"The patient's lungs filled easily and well without tracheotomy.

"We breathed for her steadily for about one hour, and then she moved her hands to her face and opened her eyes. Her cyanosis had entirely disappeared, and good oxygenation was manifest. The face-mask was taken off, and the patient breathed for herself in a long, slow, sighing fashion several times, but ceased entirely after a few minutes. The lips turned blue once more, and she would inevitably have died had we not recommenced forced respiration again. Very soon she was again able to breathe alone, and temporarily stopping the forced respiration, we gave her mustard water, and she vomited profusely. We repeated the mustard water, but she did not vomit; her head fell back, respiration ceased, and again she was turning blue when we applied the face-mask and used forced respiration for the third time.

"After a short time we induced her to swallow another large cupful of warm water and mustard with a teaspoonful of salt in it, with the result that she emptied her stomach completely.

"As is common in conditions where the respiratory centre is benumbed, emesis seems to stimulate that centre, and respirations were more willingly taken. Even at this junction, however—being about two and one-half hours from the time that forced respiration was commenced—she would certainly have died had it not been continued, as it was, altogether for four hours. At the expiration of that time, she breathed herself seven times in the minute, and in the morning her respirations were 20, her pulse 80, temperature 101°.

"Dr. Herbert U. Williams, who kindly remained all night with the patient, stated that the pulse gradually fell, and the respirations gradually increased from hour to hour; that he gave her a hypodermic of atropine (the one-hundred-fiftieth of a

grain), of strychnine (one-sixtieth of a grain), and of tincture of digitalis (fifteen drops), about 11.30 p.m. At 1.30 a.m. she had a cup of strong coffee, and a glass of warm milk at 2 a.m. At 2.30 a.m. she urinated freely.

"This patient said she took eleven grains of morphine dissolved in a glass of water at 1 o'clock on the 8th. I saw her at 4. Dr. Fell arrived about 4.30; we performed forced respiration until 9 o'clock, with the result that the woman's life was saved.

"I am convinced that ordinary artificial respiration would not have saved her life, and I cannot speak in too high praise of Dr. Fell's effectual and simple apparatus for forcing such a patient to breathe, if necessary, for many hours in succession. I think more physicians ought to possess and have in readiness Dr. Fell's apparatus, and many lives would be easily saved, where now they are lost because no such facility is at hand.

"It is interesting to note in this case that diplopia existed from the return of consciousness on Thursday evening until some time Saturday morning; and for four days the patient thought a cup of food, or whatever it might be in her hand, was held at the lips, when in reality it was four inches from them, and at first she poured out milk and tea upon her dress."

CASE XXIII.—Dr. FELL.

December 1, 1891. Called to Erie County Penitentiary by Keeper Albert H. Neal. Geo. C. W., a prisoner, had taken tincture of opium, 3 oz., and a quantity of sweet spirits of nitre, with suicidal intent, at 1 p.m.

Grains 1-10 apomorphia hypodermically administered by Drs. Fohl and Hays, resident physicians, produced vomiting. I reached the case at 3.10 p.m. The conditions usually produced by the poison were present. After about one half hour's forced respiration work per the face-mask, the cyanosis prevailing passed away, heart action became stronger, and patient became conscious at short intervals of time. This condition prevailed under forced respiration for some four hours, then auto-respiration ensued. The stupor was unusual, and I ascribed it to the intense congestion of the encephalonic vessels. Death, I believe, has been caused in several of my cases by this condition. At my request Drs. Fohl and

Hays removed 4 oz. of blood from the left arm with quite satisfactory results, relieving the congested state, and aiding, I believe, very much in the saving of the life of the patient. This patient was put to bed before I left the case, and was apparently on the fair road to recovery. Some few days later, to my great surprise, I noticed that he died of heart failure. I had not seen him since my operation, although informed that he had progressed favorably until the time of his death, which occurred suddenly. The next case indicates, as this does also, the importance of sustaining treatment and careful watching of the patient for a few days at least following the operation.

(To be continued.)

Society Proceedings.

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, April 14th, 1893.

JAMES STEWART, M.D., PRESIDENT, IN THE CHAIR.

Paralysis of the Arm following the Application of an Esmarch's Bandage.—Dr. JAMES BELL related the history of the case, the circumstances being, in his experience, unique. A young woman, 20 years old, admitted to the hospital Jan. 16th, with ankylosed elbow joint. The position was not a very bad one, being a little greater than a right angle. The history of the injury was as follows: On the 6th of last July she fell in a car, and, knocking against the wall, hurt her elbow. At the time she did not pay much attention to it; but after a while, the joint having become stiff, it was thought necessary to call on a doctor. The latter attempted passive motion, which was partially successful, but the ultimate result was ankylosis in the above position. Excision of the joint was advised, to which she after a while consented, and the operation was carried out in the ordinary way. It was noticed, after removal from the operating room, that she had no power in any of the fingers, and that even sensation was not normal. Owing to the hand being encased in dressing, no very accurate observations could be made for some days, but it was remarked that the fingers perspired profusely. At the end of the third day after operation, being anxious and unable to explain the paralysis (the operation was done subperiosteal, and he was sure no injury had been

done the ulnar nerve, besides, injury to the latter would not account for paralysis of all the fingers and muscles of the forearm), the dressing was removed, and the explanation was at once patent. The Esmarch had been applied in the upper portion of the arm, just above the belly of the biceps, and below the prominence of the deltoid, and it had been tied so tightly that the skin was blistered. There was consequently no longer any doubt as to the Esmarch being the cause. The whole operation only occupied 40 minutes, so that the band altogether could not have been applied more than half an hour. Upon the discovery of the neuritis, she was at once put under the care of Dr. Stewart. Motor paralysis remained absolute for three weeks. On the 21st day the first sign of movement returned, being a slight motion of the thumb, and after about six weeks' treatment she returned to her home with almost complete power of the arm. Once movement began to appear, it progressed very rapidly. She was able to flex and extend the arm and fingers completely, though not with the full amount of power. There, however, was no motion deficient.

This case is very instructive and very important, in view of the frequency of the application of the Esmarch. It is interesting on account of its rarity. It was the first time he had met with the accident, and, considering the number of operations he had seen in the last twenty years, and the recklessness with which the Esmarch had been applied in all sorts and conditions of patients, it seemed to him that this must indeed be a rare complication. It could hardly have occurred had the Esmarch been applied in any other part of the body; but it is a lesson well worth bearing in mind.

The PRESIDENT drew attention to the value of electricity in prognosis. This case, even up to the second week, presented no signs of the action of degeneration, so that although the paralysis at the time was absolute, he could give a favorable prognosis, and the ultimate result justified it.

Myeloid Sarcoma of the Second Metatarsal Bone.—Dr. ADAMI exhibited the tumor because its position, namely, the second metatarsal bone, is distinctly uncommon, and therefore worthy of record. It was removed in the hospital recently by Dr. Shepherd, during which some difficulty was experienced, owing to the deep arch passing close beneath the second metatarsal bone. The arch was cut across, and considerable hæmorrhage was experienced. At first it looked as if the tumor had grown from the tendons, owing to the latter being closely applied to its upper surface. Further examination, however, showed this was not the case; the tendons were with moderate ease dissected off, and the tumor seen to be attached to the bone. On examining the tumor

microscopically, thin fibrous bands are seen stretching across the tumor, originating from the periosteal surface of the bone. We are then really dealing with a periosteal tumor. Further examination shows it to be a very pretty and very good example of a myeloid sarcoma. The main features are large spindle cells of various sizes; and amongst these some very large giant cells multi-nucleated. In addition to these, and accounting for this being rather a slow growth, there is a considerable amount of fibrous tissue in the tumor, and which in places has undergone hyaline degeneration. The correct name, therefore, for the growth would be hyaline myeloid sarcoma. The patient was a young man.

Upon Horse-Pox Affecting the Cow.—Dr. ADAMI brought this subject before the Society, not because his observations could be considered as other than at their commencement, but because at the present moment great interest is being manifested in the subject of vaccinia and the various diseases allied to or liable to be mistaken for it.

In Montreal, horses are very subject to horse-pox, and especially during this winter has the disease assumed the character almost of an epizootic. Dr. Adami himself had seen as many as twenty cases. It would seem to come on just about the time of a thaw, when the horses in their work about the streets are very much exposed to partly-frozen water about the lower portions of their legs. Many of these cases this winter have been associated with the production in the groom, or those attending the horses, of definite eruptions, very similar to the true vaccinal pox. Dr. Bell and others present could give records of grooms and others going to the hospital with pocks on the hand, lips and face obtained in this way.

The case in question was one which occurred in the stable of Mr. Strathly, a gentleman who has well-kept stables. Unfortunately, less than a month ago both his horses were attacked with horse-pox. Now, it is the custom in Montreal with many people to keep a cow in the stables with the horses, for greater warmth as well as for domestic convenience. Such was the case in Mr. Strathly's stable, and the cow was milked and tended to by the groom who looked after the horses. One horse had the pox about ten days, the other, the greater part of two weeks, when it was noticed one Monday that there were upon the two posterior teats of the cow a small papular eruption. On Wednesday, Mr. Baker very kindly showed him (Dr. Adami) the cow; the papules had then become distinct vesicles, and on the Friday following they showed well-marked scabs. There was a certain amount of inflammation in the vicinity; but this had been reduced to a minimum by the cessation

of oral manipulation of the udders and by employing a milk tube to draw off the milk. The scabs were very characteristic, and accorded wholly with the classical pictures given of the true cow-pox affecting the udders and teats of the cow. The history seemed to be most clear. The stable was outside Montreal; the horses and cow were kept apart from all other animals, and they were attended to by the same man; the cow showed the characteristic eruption. It would seem most probable that here we were dealing with a case of horse-pox communicated to the cow by the milker, who was at the same time groom. A week previous to the meeting, Dr. Adami had inoculated a calf with the scabs rubbed up in glycerine, and again with the knife that he had employed in removing these scabs, with the result that on that day there were to be seen on the latter well-marked typical vesicles, some beginning to dry up, some becoming slightly pustular, such as one gets in vaccinating the cow for the purpose of obtaining vaccine lymph. This is a subject of extreme interest. One hundred years ago Jenner declared that cow-pox was produced from horse-pox. On further investigation it was seen that he had made a mistake, that he had inoculated "grease" instead of horse-pox, and ever since the anti-vaccinationists have availed themselves of this circumstance as a fruitful source of derision in their attacks. Since then there have been many workers in this line, but the conclusions drawn have been very vague ones. He thought that the present case afforded an opportunity of doing some good work in clearing up the difficulty and establishing the identity or separate status of horse and cow-pox. Having once obtained a cow-pox from a horse, as we almost surely have done, and then by inoculation from the cow, obtained typical vaccinia in the calf, if some human being will allow himself to be vaccinated by this lymph from the calf, and typical vaccine vesicles or pustules are obtained, Dr. Adami held that he would go near to prove that these two conditions are identical. It is an experiment well worth carrying out, especially as there is a commission now working on this subject in London, and so far they have been able to arrive at no very definite results. Dr. Adami expresses his indebtedness to Dr. Baker for much assistance in the case.

Dr. JAMES BELL saw two cases during the winter of horse-pox in grooms. The first man came with a sore on his lip; it was large, hard and indurated, with depressed, umbilicated, vesicular surface; enlargement of the lymphatic glands beneath the jaws. It was at first regarded as a hard chancre, though the man persistently denied any confirmatory history. Finally, on learning his occupation and who he worked for, his case was better understood.

No doubt it was a case of horse-pox. He was a groom to a gentleman whose horses had been afflicted with the disease this winter. Moreover, the subsequent history and development of the case confirmed the diagnosis of horse-pox.

The other case was seen some time after the foregoing, and, with the benefit of this experience as a guide, a diagnosis was more readily made. His was a sore thumb, and, although the history is not so reliable as in the first case, still he (Dr. Bell) was practically sure it was a case of horse-pox.

Now, if it can be inoculated on the groom it can be inoculated on the cow, and this is another link in the evidence going to prove the identity of small-pox in the different species of animals, only modified by the special organism in each case. He asked for some information as to a differential diagnosis between "grease" and "horse-pox" in horses. It seems rather suspicious that horse-pox should be so prevalent in horses at a time of the year when they are exposed to wet and damp weather, which is known to be the cause of "grease" in these animals; or, in other words, that a good many cases of "grease" are diagnosed as horse-pox.

Dr. D. J. EVANS said that a case of this kind came under his observation some three weeks ago. A groom who was attending to three horses, all of whom were afflicted with the pox, happened to get a slight scratch on his hand. At the seat of the scratch a little inflammation was noted, with some slight constitutional febrile disturbances; a vesicle formed, which in a few days became pustular, when it broke, and a marked little ulcer remained. The ulcer finally healed up, and left a distinct cicatrix behind.

Dr. KIRKPATRICK asked if horse-pox protects against small-pox in the same way as when the vaccine has passed through the calf.

Dr. GURD referred to a case he had seen about eight years ago. A groom, while attending to some horses suffering from this disease, was accidentally inoculated in the cheek. An inflammation followed and a typical vesicle was developed. The cheek began to swell considerably, and, being so close to the eye, he began to fear an injury to his sight, and went to Dr. Buller, who, no doubt, can corroborate these statements.

Dr. SMITH, referring to the differential diagnosis between horse-pox and "grease," thought that the course and termination was sufficient to distinguish them. Horse-pox does not last two or three months, as "grease" often does. Like all the acute fevers, it is a self-limited disease. "Grease" is looked upon as a neglect on the part of the groom to properly dry the horse's feet.

Dr. ELDER thought that there were still one or two links wanting to complete a valuable

piece of evidence. He understood that the groom did not have the pox at all, and it seemed that the connection between the sickness of the cow and that of the horses is not clearly established. There is nothing more common than for cows to have cow-pox, and that this cow should have it at the time that the horses had horse-pox may at the most be only a coincidence. If the pox had been taken from the horse and put into the calf, then it would have been a direct piece of evidence. As it is, the calf was inoculated from the cow, and the resemblance of the calf's disease to cow-pox may, after all, be due to that, and not horse-pox, being the true malady of the cow.

Dr. ADAMI stated that this was purely a preliminary communication, and the experiments reported are only the beginning of a series of experiments. He had already taken material from the horses, also a scab from one of the grooms that has had horse-pox, and intended inoculating them in cows. With regard to the matter of "grease," one important point is the duration of the disease. "Grease" is a long disease; it does not have the stages of horse-pox. Horse-pox is a papular eruption, followed by the coalescence of the papules, the formation of vesicles and the development of the vesicles into pustules. Finally, you have the rupture of these pustules, the formation of little ulcers and the healing of those ulcers, leaving behind a permanent cicatrix. "Grease," on the other hand, is not characterized by pustules, but rather by pus. It is simply a superficial inflammation of the skin, which goes on to suppuration. This refers to typical cases. Of course, there are atypical cases where it is not so easy to separate them. He had seen a case of horse-pox in Montreal where regular suppuration took place, with great swelling and tenderness, but this is exceptional. He was not properly acquainted with all the manifestations which "grease" may undergo, nor could he give what he felt to be an adequate history of its course and termination, although he can detect it readily enough when he sees it. "Grease" is a subcutaneous as well as a cutaneous affection, and he doubted whether it has any counterpart in the human being. With regard to horse-pox granting protection against small-pox, this is as yet an unsettled point. In the last few years a good many experiments have been made in this direction, and many of them seemed to declare that it did protect; others have doubted it. Among grooms, twenty or thirty years ago, when horse-pox was more prevalent in the Old Country, it was believed that it did protect, but this is also a matter which requires to be thoroughly investigated, and a complete series of experiments is urgently required.

Epithelioma of the Soft Palate, etc.—Dr.

H. D. HAMILTON, after stating that he had to thank Dr. George W. Major for the permission to utilize material from his clinic, read the report of the case, as follows:—

R. H., female aged 45; unmarried; a domestic servant; lived in Montreal.

First applied for relief at Nose and Throat Department of the Montreal General Hospital in November, 1891, complaining of soreness of the throat and painful swelling of the glands of the neck, both on the right side.

Present Illness—Began in the summer of 1891 as a small sore on the soft palate to the right of the middle line. This was described as a "pimple, about the size of a split-pea, painful and red like a burn." When this had been noticed one month, a doctor was consulted, who used a paint, which, the patient says, cured the spot.

A few weeks later a similar sore appeared nearer the right, on the soft palate. This was treated as before, with no effect; the spot increased in size and the glands of the right side of the neck became swollen and painful, and when this had been going on for three months the patient applied at the hospital in November, 1891.

Through the winter of '91-92, patient applied at irregular intervals at the hospital, and her condition seems to have remained about the same, with the exception of marked increase of pain in throat and neck when she was exposed to a cold. (She was able to keep on with her work.) When I first had the opportunity of seeing patient, June, 1892, she complained of difficulty in swallowing solids. The ulceration had then attacked the right posterior pillar of the fauces and the pharyngeal wall immediately behind.

Her case was followed up through the summer and winter of '92, during which time this discomfort varied in degree, but flesh was lost steadily, and the ulceration gradually spread towards the left, both by way of the post-pharyngeal wall and the soft palate, so that at the New Year, the left cervical glands had also become involved, and the patient was obliged to give up work and come to live with a married sister in the city.

The tongue was attacked first in January, 1893. The patient was suffering from "la grippe," when an acute glossitis occurred. The swelling subsided in a few days, leaving a deep ulceration in the right side of the tongue opposite a decayed lower tooth. The tooth was drawn, and soon the tongue returned to its normal size, leaving a painful ulcerated spot marking the position of the tooth.

At this time the patient had been six months without solid food; pains shooting from the angles of the jaw towards the ears and vertex were almost constant. (Hearing was not impaired.) Nutrient enemata had to be com-

menced on the 19th of February last. The throat became so painful during an acute inflammation that the patient could swallow nothing. Feeding by soft rubber catheter was tried, but produced too much pain and retching. After a few days, liquid food could again be taken in small quantities, but enemata were constantly used from that time. The ulceration of the tongue had now been present one month, and had become surrounded by a hard mass the size of a marble. The voice was now noticed hoarse for the first time.

One week later, February 26, 1893, the floor of the mouth became rapidly swollen and very painful, the discharge from the mouth became blood-stained and foetid, and the patient coughed frequently. Lungs on examination found clear.

Patient was admitted into the General Hospital on 9th of March, where she remained for one week, having the artificial feeding regularly attended to, both by stomach tube and enemata. On returning home she kept her bed; took nothing by the mouth; her mind wandered frequently; the blood-stained foetid discharge from the mouth was very offensive.

March 27th the patient died suddenly after a large quantity of blood escaped by the mouth and nose. When seen earlier in the day, the wasting and weakness were very marked. The mind was weak. Pulse 124, small and thready; respirations 20; temperature (under the tongue) 97.2-5° F. No pain complained of.

Personal History—Negative, patient's habits being regular and her health always good before this disease began.

Family History—Father died of cancer at age of 55 years. (His tongue had been removed for this disease by Dr. Shepherd.)

General condition has been sufficiently described, except that the heart gave a faint systolic "bruit" over the mitral area early in the course of the illness.

Post-mortem examination could only be partial (by the wishes of the family), so I endeavored to get as much of the diseased pharynx and larynx away as possible. The stomach and liver were roughly examined, but only a small infarction on the surface of the liver was found.

When the floor of the mouth, tongue, larynx and commencement of œsophagus were removed, the naso-pharynx could be felt a crumbling mass of superficial ulceration. The whole of the soft palate was absent; no bare bone could be felt. The parts removed showed bone attacked, viz., the greater ala of the hyoid bone on the right side. To enumerate the parts affected, we have the walls of the pharynx and naso-pharynx, the soft palate, fauces and tonsils, the larynx externally and internally on the right side. Externally the superior ala of

the thyroid cartilage was absent, and internally the disease had reached the true vocal cord. The right half of the epiglottis was removed by ulceration, and the tongue immediately in front was infiltrated throughout its whole width, while the right side towards the tip was deeply ulcerated. The glands affected were beneath the jaws and the anterior cervical chains on both sides.

The course taken by the disease, as far as can be made out by the clinical observations, was as follows: First, the right side of the soft palate and the cervical glands on the right; the pillars of the fauces, the tonsil and the side of the pharynx on the right. Then the back of the pharynx, the remainder of the soft palate, the left tonsil, fauces and anterior chain of glands. Towards the end the right side of tongue and glands below the jaw, and the interior of the larynx.

Sections from the tongue and left anterior pillar of the fauces were removed for microscopical examination. Dr. Adami kindly made the examination, and with his consent I will quote what was written at the time concerning the two sections:

"Sections from the tongue and palate are atypical epithelioma, that is, the masses of cells passing down from the epithelium into the deeper tissues are small and devoid of cell nests, so that at a very little distance from the surface the growth might easily be mistaken for a true carcinoma."

If I may impose on the time of the Society for a few minutes more, I should like to draw attention to a few characteristics of this disease accurately borne out in this case.

Epithelioma of the tongue runs a rapid course; the lymphatic glands are soon infected, and death follows in a short time.

Again, in malignant growths of rapid course, there is more than the usual tendency to be atypical.

Epithelioma of the tongue is seen to be influenced by irritation as a cause almost more than any other growth. In this case the tongue was affected within three months of the end. The microscopical examination has proved the growth to be atypical. The onset of the disease with the irritation of a root of a tooth against an acutely swollen tongue is significant.

I have gone thus fully into the case, for the following reasons:—

Firstly, this is a case where the cancer clearly began in the soft palate and fauces—not at all a common occurrence.

And, secondly, since the variety of the growth is the same in both, the interesting question arises, viz.: May the recent involvement of the tongue not be due to direct infection, the tongue being constantly in contact with the diseased palate and fauces? An avenue for infection was widely opened by the irritation of the tooth described.

Lastly, it is worth noticing the effect of "Influenza" in this case. Several times during the earlier part of the winter the patient came complaining of rapid onset of pain and swelling of the throat and neck, making it next to impossible to swallow or even open the mouth. The skin over the glands would then be red and tender. The attack of glossitis accompanied one of these attacks, and most likely depended chiefly upon the epidemic.

Dr. ADAMI:—Dr. Hamilton's cases interested me a great deal. It is so rare to have two forms of carcinoma occurring in the same patient at the same time, that although this conclusion that the two forms were present was forced upon me as the result of first sections, I was unwilling to believe it, and have spent two days cutting and preparing more than half a dozen portions of the tissues, with the result that I am glad to retract my previous report. First of all, taking the facts as they come, in examining the tongue one is no doubt dealing with an epithelioma, though unfortunately this inflammatory condition, coupled with a foul sanious discharge, and the time that elapsed before the post-mortem was made rendering the whole surface more or less disintegrated, made it difficult to be certain. I find a proliferation of the epithelium; that proliferation is not the same as in the typical epitheliomatous proliferation. In some regions one sees it a proliferation affecting the ducts of the glands passing down the lower portion of the tongue, and again one sees these glands undergoing malignant change. In all sections examined there is this curious absence of well marked "cell nests;" there are cell nests, but they are poorly developed. In the lower portion of the tongue the appearance is very similar to what one gets in scirrhus cancer, long thin lines of cancerous cells separated from each other by marked fibrous stroma. Then one sees the infiltration between the masses of the cells.

Going, then, to the fauces, there is here complete absence of anything like true epithelioma; in its place there is a carcinomatous appearance. However, in sections made to-day, in some regions nearer the tongue than those first made for Dr. Hamilton, one sees similar appearances to that found in the tongue, so now I say that throughout we are dealing with an atypical epithelioma. The epithelioma seems to spring from the lower portion of the epithelium, loses its appearance very rapidly, and soon grows to resemble ordinary gland cancer. When I came to examine the right vocal cord, there I found purely inflammation and no carcinomatous appearance whatever.

Neurasthenia of the Stomach.—Dr. GUNN read his paper on this subject.

THE PRESIDENT took exception to one of Dr. Gunn's statements, viz., that "anorexia nervosa" never occurs in the male sex. Most of the

senior medical men in this city remember a case of the medical student named Brown who was suffering from this disease. He was looked upon as the most perfect type of the living skeleton that had ever been known. One of the most important of Dr. Gunn's remarks is that every case requires to be treated on its own merits. A great many of these cases are certainly very difficult to cure, and in the vast majority of them it requires a man like Weir Mitchell to be successful. There is something about the mental type of the man that is essential to success in such states. There is one form of treatment that Dr. Gunn forgot to mention, namely, hydro-therapeutics. Winternitz, in Europe, treats with cold water, but he is no more successful than Weir Mitchell.

Dr. LAFLEUR said that about three years ago he had seen a case of "anorexia nervosa" in the male. The man had at the same time another neurosis, that increased very considerably the difficulty of the forced feeding treatment, viz., persistent eructations. However, when last heard of he was very much improved. In Johns Hopkins Hospital, Baltimore, they have had some experience with the Weir Mitchell treatment, having as a rule quite a number of patients in the private wards suffering from general neurasthenia, and many of them suffering from gastric disorders. He corroborated the statement that the treatment is very successful when properly carried out; but it requires a special type of man, one with unusual tact and persuasiveness, to carry it out and unless thoroughly enforced it is worse than useless, it is really harmful.

Dr. WYATT JOHNSTON remembered a case which would probably come under the category of neurasthenia of the stomach, although not anorexia nervosa. The patient, a man slightly over 40 years of age, fairly healthy as a rule, fairly strong, from time to time suffers from the most severe attacks of what it would be impossible to describe as being anything but nervous dyspepsia. The attacks come on gradually; food begins to disagree with him. He has a great inclination to take food, but its inception causes him pain, and again pain is felt more when food is not taken. There were never any definite signs pointing to an organic disease, such as ulcer; there were never any hæmorrhages or any definitely localized pain. These attacks used to reduce him to a perfect skeleton. They lasted several weeks, and during that time it was impossible to do anything for him. At the end of that time he got perfectly well, and remained so for a year or more. One peculiarity he had about him was that when he began to get well he would diet himself, and, in spite of the extremely small quantity of food ingested, managed to perform a very unusual amount of active exercise. One slice of bread and three glasses of milk was his

average daily allowance, while at the same time he walked from 10 to 15 miles daily, besides other active employment. Notwithstanding this discrepancy between the quantity of food taken and the amount of work done, he gained flesh, and picks up rapidly. Between the times he enjoys good health, but is any day liable to one of these severe attacks of gastric pain.

Dr. GUNN, in reply, said he was very glad to hear of cases of anorexia nervosa appearing in the male, as it corrects a wrong impression hitherto existing in his mind. This impression he received from the author quoted in his paper, who states positively it never appears in the male; and the cases mentioned here tonight he had not seen reported anywhere.

THE LATE DR. WILLIAM F. HUTCHINSON.

At a meeting of the Executive Council of the American Electro-Therapeutic Association, the following resolutions on the death of Dr. William F. Hutchinson of Providence, R.I., were unanimously adopted:

Whereas, it becomes our painful duty to announce the death of Dr. William F. Hutchinson, one of the foundation fellows of the American Electro-Therapeutical Association, as well as the first vice-president of the same; and

Whereas, in his death we lose a warm and faithful friend, a valued associate and an accomplished member of the profession, therefore be it:

Resolved: That this Association desires to place on record its appreciation of his genial spirit, his active co-operation in the work of the Association and of his deep interest in the scientific question to his chosen profession.

Resolved: That we express our sincere regret and heartfelt sorrow at his death.

Resolved: That we tender to his sorrowing family an expression of our profound sympathy in their great loss.

Resolved: That a copy of these resolutions be sent to the bereaved family, to the Medical journals, and that they be entered upon the minutes of the Association.

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MONTREAL, JANUARY, 1894.

LODGE DOCTORS.

The question, whether physicians, in justice to themselves as well as in justice to their professional brethren, should accept the position of doctor to a lodge has lately raised a good deal of discussion, more especially during the last few years, during which the practice has become more and more abused. While it is quite true that the majority of workingmen are unable to pay the ordinary tariff of fees, yet in most cases they could pay more than the amount which the lodge doctor at present receives, namely, one dollar per annum, including medicine. It is true also that the principle on which benefit societies are founded is that only a small proportion of the total number of members may be expected to be sick and requiring medical attendance or the financial assistance of the lodge at a time, and that the well ones will contribute towards the expenses of the sick and disabled member. So far, the principle is a good one, encouraging providence or the providing during health for a time of sickness; on the other hand, the tendency is to depreciate the value of the services of physicians in general, for when a man belonging to a lodge who only pays one dollar a year is stricken down with typhoid fever, and receives fifty visits from the lodge doctor, he will be strongly under the impression that the dollar which he has paid is an ample recompense for those services which are really worth from fifty to one hundred dollars.

Another objection to lodge work is the tyranny which the managers of lodges often exercise over the lodge doctor. As it costs no more for a night visit than a day one, the lodge doctor is often summoned at times which are most inconvenient for him to attend; and while he would probably suit his own convenience in the case of an ordinary paying patient, he might not dare to do so in the case of a lodge patient, lest the latter should complain to the lodge and thus have him dismissed. These remarks have been suggested to us by the appearance of a well written letter by Dr. R. Ovens of Forest, Ont., which appears in the *Ontario Medical Journal* for November. In this the doctor states that he felt that his remaining the court physician for the two lodges in his town was an injustice to himself and to the other physicians of the place; and feeling that it was unfair for him to thus obtain an undue advantage over the other physicians, he generously acted on his convictions, and asked each court to relieve him from being a court physician, with the result that they decided to abolish that part of their constitution which required them to have a lodge doctor. The same patients still employ him, but instead of paying him only one dollar for fifty visits, they are paying him fifty dollars at least for the same work; and as people value what they get very much in proportion to what they pay for it, it is likely that his action in obtaining the abolition of court physicians of lodges has raised the status generally of the medical men in that town. It is true that the physicians to great railway and other corporations are in much the same position as the lodge doctor, only on a larger scale, and eventually something should be done to put a stop to that; but in the meantime we believe it would be for the welfare of the profession generally to refuse to hire themselves out to lodges for less than a quarter of their proper remuneration.

This, however, brings up another point which we have discussed already several times in these columns, and that is: what are the poorer classes of laboring men to do for medical advice? It is utterly impossible for them to pay a dollar a visit for every time any member of their family is ill, and yet they must be attended by someone. The view we have always taken on this point is that the young

doctor who has little expenses to meet, plenty of time on his hands and a great deal of experience to learn, should be ready to attend these patients for a sum quite within their means to pay. We have often been struck by the hardship and even cruelty which is inflicted upon an honest laboring man by charging him the full fees for medical attendance. In addition to the enormous cost of medicines, a laboring man receiving one dollar a day—and there are thousands of them who do not average more than that, taking into account the time lost by bad weather, short time, lack of employment, etc., and having to pay rent, fuel, taxes, and to provide food and clothing for himself and wife, and perhaps a half a dozen or a dozen children—cannot afford to pay a dollar a visit.

The proper course, we believe, would be for the young doctor to attend the case faithfully, making as many visits as are necessary and providing medicine himself, and to charge him for only every third or fourth visit; if possible, obtaining his fee in cash. We know of many instances where a poor man's life has been made miserable by the running up of large bills on the same scale of prices as are charged to wealthy men—bills which the poor man can never hope to pay. We have even known these bills to be placed in the hands of a lawyer for collection, thereby adding costs to swell the amount.

Rather than that anyone in our noble and liberal profession should be the cause of such a hardship, it will be better to attend these case at the dispensaries or hospitals for nothing.

This, however, the poor but respectable citizen does not ask or wish; he would much prefer to pay in proportion to his means, as well as his millionaire fellow-citizen. We shall never cease to cry out against the great disparity in the charges made to the millionaire and to the struggling laboring man for the same service. Much of the abuse of hospitals, dispensaries and lodges is due to the comparatively exorbitant charges made by some of the younger practitioners. All these evils could, we believe, be abolished if the young practitioner would charge and collect as much as, and no more than, the poor but honest workingman can afford to pay.

NEWS ITEM.

The undersigned chairman of the American National Committee of the International Medical Congress, which was postponed from September 24th on account of Cholera prevailing in Italy, has been notified by the Secretary-General that the Congress will be held at Rome from March 29th to April 5th, 1894. Instructions and documents relating to the journey, etc., are promised for the near future.

Yours very respectfully,

A. JACOBI, M.D.

110 W. 34th Street, New York,

November 17th, 1893.

PAMPHLETS.

EXERCISE FOR PULMONARY INVALIDS, by Charles Denison, A.M., M.D., Denver, Colorado.

OUTLINES OF OBSTETRICS. A syllabus of lectures delivered at the Long Island College hospital. By Charles Jewett, A.M., M.D., Professor of Obstetrics and Pediatrics in the college, and Obstetrician to the hospital. Edited by Harold F. Jewett, M.D. Philadelphia: W. B. Saunders, 925 Walnut Street, 1894. Price \$2.00.

CONNECTICUT STATE MEDICAL DIRECTORY. Dedicated to the Medical profession of Connecticut. Containing a carefully prepared list of physicians, dentists and druggists, together with colleges, hospitals, medical associations, and societies throughout the State. 1893. The Danbury Medical Printing Co., Danbury, Conn.

DE LA MÉNINGITE TUBERCULEUSE CHEZ L'ENFANT, par le Dr. E. Schoull, de Troyes. Vient de paraître. Société d'Éditions Scientifiques 4, rue Antoine-Dubois, et Place de l'École-de-Médecine, Paris. Prix: 3 francs; envoi franco contre un mandat.

L'auteur, dont la compétence dans l'étude de la tuberculose s'est affirmée déjà par plusieurs travaux importants sur ce sujet, est convaincu, à l'encontre de la plupart des contemporains, de la guérison possible de la méningite tuberculeuse. Ayant en vue surtout un *but pratique*, il s'est abstenu de détails trop étendus sur l'histoire et l'anatomie pathologique de cette affection, mais a développé avec soin les chapitres si importants du diagnostic et du traitement. Ce petit livre sera lu avec fruit par tous les praticiens; il sera de même utile aux mères, à qui sont indiqués les moyens de préserver, dans la mesure du possible, leurs enfants plus ou moins prédisposés, et d'appeler à temps le médecin quand apparaîtront les signes précurseurs de cette terrible maladie.

BOOK NOTICES.

THE MEDICAL NEWS VISITING LIST FOR 1894.

Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month); Perpetual (undated, for 30 patients weekly per year); and Perpetual (undated, for 60 patients weekly per year). The first three styles contain 32 pages of data and 176 pages of blanks. The 60 Patient Perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book, pocket-pencil, rubber, and catheter-scale, etc. Seal Grain Leather, \$1.25. Philadelphia: Lea Brothers & Co., 1893.

The Medical News Visiting List for 1894 has been thoroughly revised and brought up to date in every respect. The text portion (32 pages) contains the most useful data for the physician and surgeon, including an alphabetical Table of Diseases, with the most approved Remedies, and a Table of Doses. It also contains sections on Examination of Urine, Artificial Respiration, Incompatibles, Poisons and Antidotes, Diagnostic Table of Eruptive Fevers and the Ligation of Arteries. The classified blanks (176 pages) are arranged to hold records of all kinds of professional work, with memoranda and accounts. Four styles are now published: Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month, and good for any year); Perpetual (undated, for 30 patients weekly per year); and Perpetual (undated, for 60 patients weekly per year). This last style consists of 256 pages of assorted record blanks, without text. The Medical News Visiting List adapts itself to any system of keeping professional accounts. Each style is in one volume, bound in handsome red leather, with pocket-pencil, rubber, and catheter-scale; price, \$1.25. When desired, a Ready Reference Thumb-letter Index is furnished, which is peculiar to this Visiting List, and will save many-fold its small cost (25 cents) in the economy of time effected during a year. In short, every need of the physician seems to have been anticipated in The Medical News Visiting List.

THE PHYSICIAN'S VISITING LIST FOR 1894, published annually for 43 years Lindsay & Blakiston, Philadelphia. Price, \$1.

The fact that this Visiting List has been published annually for forty years is sufficient guarantee of its excellence and popularity. In addition to the visiting list proper, it contains easily-accessible suggestions upon many of the emergencies that may arise in a physician's practice, as when he is too far from home to learn from his text-books the antidote

for a poison that may have been swallowed, or the proper method of resuscitating a half drowned person. True, he should know these things, but who does not occasionally forget when he most wishes to remember? There are also dose-tables, tables of the metric system, a list of new remedies, rules for examining urine, a table for calculating the period of pregnancy, and other equally useful information. The arrangement for entering patients, visits, consultations, etc., is exceedingly simple, and the whole makes a thin, compact, and easily carried volume.

PUBLISHERS' DEPARTMENT.

A TOO COMMON AFFRONT TO THE PROFESSION.

About a year since, the *Journal of the American Medical Association*, in an editorial article, referred in unqualified language to the strained relations which it asserted were existing between physician and druggist: the salient cause being the habit of counter-prescribing, coupled with the more vicious habit of substituting. Since then, if we may judge from the tone of the bulk of new literature being sent out, the substitution habit is shown to be the one great enemy overtopping all others to successful medical practice.

We do not mean to assert that a pharmacist is given to the habit. On the contrary, we believe a large majority of them to be entirely free and above suspicion. Still, the fact remains that substitution is practised to such an extent as to engender anxiety and timidity on the part of prescribing physicians.

Persistent effort at substitution is but a commendation of the genuine product sought to be imitated, and the practising physician is quick to recognize the fact. And, once recognizing it, his confidence in the genuine is strengthened, while at the same time he is forced into the unpleasant attitude of maintaining a constant wariness over his prescriptions.

As fairly typifying this condition, we give below an extract from a letter from Mr. Bostick, of Galena, written Oct. 24th, 1893, to the Antikamnia Chemical Co. This letter is, by the way, a fair prototype. He says:

"I became dissatisfied some time since with the action, or rather non-action, of what I supposed to be Antikamnia. I began to look into the matter, and discovered the druggist had been substituting in my prescriptions. I then had him get me tablets which I felt quite sure he, with any appliances he had, could not imitate, since which time I have been entirely satisfied with its action. I am satisfied that much stuff is sold and palmed off as Antikamnia, much to the detriment of your article, which has proven so very satisfactory to me. In many cases where quinine is indicated, I cannot prescribe it on account of its action on the brain, unless with Antikamnia, which seems to remove the objectionable feature."

The foregoing will surely justify all practitioners, where they may have cause to suspect they are being subjected to any such practices, in insisting upon the perfect integrity of everything they specify in their prescriptions. *The doctor has the highest and best right to insist that no worthless substitute be imposed upon his defenceless patient.*—*Courier of Medicine*, Nov., 1893.

The Canada Medical Record.

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Original Communications.

FELL METHOD—FORCED RESPIRATION.

By GEO. E. FELL, M.D., F.R.M.S.
Ex-President American Microscopical Society, etc., Buffalo, N.Y.

(Continued.)

CASE XXIV.—Dr. FELL.

December 25, 1891, Mr. C., a resident of Niagara street, Buffalo, a man not habitually accustomed to drink, came under the influence of liquor under peculiar circumstances, and is said to have taken 2 oz. of laudanum. He was taken by the ambulance to the Fitch Hospital, and treated in the ordinary manner by the surgeons in attendance at the hospital, but with unsatisfactory results. The wife and brother-in-law were called about 11 p.m., and they were informed by the physicians in charge that there was no hope for the patient; that everything had been done that was possible to be done. At the urgent re-

quest of the wife of the patient, I was called about 11 p.m. I found the patient in a very precarious state, totally unconscious, and in danger of death supervening quickly.

I applied the forced respiration apparatus with favorable results. The cyanosis was overcome, and, after some four hours' work, the patient became conscious, respired for himself, and at 6.30 in the morning was taken to his home in the ambulance. A condition of stupor continued at his home for a number of days following the operation; he did not seem to improve as rapidly as was the custom, until he was taken to a neighbor's house, when it was noticed improvement was rapid. He had been placed on stimulating and supportive treatment, but with apparently very little success. It was noticed, however, that there was quite an escape of natural gas at the stove connection in the room in which he lived, and very much of this slow recovery must be attributed to this, as after the removal from the house he recovered very quickly, and on the leak in the pipe being repaired he was not further affected, and made a good recovery. This case *illus-*

trates the importance of hospitals being provided with an apparatus suitable for performing forced respiration. Had it not been for the special request of the wife of this gentleman, who was very devoted indeed, there is no question but that he would have died under the treatment used at the Fitch Hospital. All had been done that artificial respiration or ordinary methods would accomplish, and yet within four hours from the time I was first called to see this patient, he was placed out of a dangerous condition. The question arises whether, with such facts presented to the profession, any hospital in the country is justified in not being prepared for cases of this character, which may at any time be presented to them.

CASE XXV.

Mrs. W., of Elliott street, Buffalo, took an overdose of morphia. I was sent for, but was unable to attend owing to illness, and sent my apparatus in charge of my office student, a nephew 17 years of age. The case was reported as hopeless under the ordinary treatment, but quickly recovered under forced respiration.

Having notified the profession in Buffalo that I desired its members to use my apparatus gratuitously, if desired, in cases which called for it, several physicians have availed themselves of the offer. I present two cases of interest, and number them consecutively.

CASE XXVI.

Dr. L. J. MCADAMS, Buffalo, N. Y.

Mary M., on July 23, 1893, became unconscious from several doses of morphine administered for the relief of biliary colic, in all about $\frac{2}{3}$ of a grain were given hypodermically. About 4 p.m. was seen to become very quiet and cyanotic. Artificial respiration was immediately begun, as there was no voluntary effort to breathe. This was kept up for $5\frac{1}{2}$ hours, and all the time the stupor becoming more profound, and the cyanosis to such an extensive degree, that Dr. Dignew and myself thought that before we could get the forced respiration apparatus and perform tracheotomy, the patient would die of CO. poisoning. As the heart kept up fairly good, at 9.30 the messenger arrived with the apparatus

(Fell's forced respiration), and at 9.45 the bellows were going, and the patient began to change color, and at 3 a.m., July 24, the patient could converse and was out of danger, and has made an uninterrupted recovery (after $5\frac{1}{4}$ hours of forced respiration which resulted in saving her life).

CASE NO. XXVII.

Dr. J. C. GREEN and DR. J. W. YORK,
Buffalo, N. Y.

August 8th, 1893, Mrs. P., aged forty-six years, and poorly nourished owing to the fact that she had taken very little food for past three or four weeks, was seen at 4.15 in the morning. Dr. J. C. Green was called at 2 o'clock, and found her suffering from opium poisoning. It was learned that one ounce had been taken at 9 o'clock on the previous evening. Dr. Green states that he found her pulse 120, and her respirations three per minute; the patient was cyanosed. He gave her 1-16 gr. of atropia, and in one-half hour 1.30 gr. more, hypodermically. Patient could not be aroused. Sylvester's method of artificial respiration was produced, but with no improvement in her condition. Began forced respiration with face-mask apparatus of Dr. Fell at 4.30 a.m. This was continued for seven hours with occasional intermissions, during which Sylvester's method was used. Patient had a feeble pulse, which at times was not perceptible at the wrist. One one-hundredth (1-100) gr. of nitro-glycerine was given hypodermically twice, and an injection of strong coffee per rectum three times. At 11.30 patient moved for the first time, and opened her eyes, but made no attempt to breathe. For the next two hours, forced respiration was practised at intervals, the patient becoming cyanosed very soon after it was omitted. At 1.30 she was considered out of danger, respiration having begun one-half hour before, at first almost imperceptibly. Dr. J. C. Green rendered valuable assistance during the last six or seven hours of treatment.

I was unable to obtain a very clear history as to patient's mental condition previous, or family history.

This woman's life was saved by Dr. Fell's method of forced respiration. She weighed about 100 pounds, and had taken

very little nourishment for three or four weeks, none in 24 hours. This I think made one ounce of opium tincture produce as much effect in her case as two would do under ordinary circumstances. During six or seven hours of the treatment I think she would have died in 15 minutes without forced respiration.

Dr. Joseph C. Green, one of the oldest and most respected practitioners in Buffalo, said of this case in a letter received by me the day I started for this place, September 4, 1893:—

"I have been acquainted, theoretically, with your apparatus for producing artificial respiration in cases of drowning and opium poisoning, for some time, but I never had an opportunity to test the merits of it until one day last month (August, 1893). I was called to the bedside of a lady belonging to one of my old families, and found that she was suffering from the effects of an overdose (one ounce) of laudanum, taken *five* hours previous to my visit. She was cyanotic; breathing four times a minute when undisturbed; pulse small and fluttering, with all the other symptoms of opium poisoning. Emetics and stomach pump being out of the question, I gave a hypodermic injection of 1-16 of atropia, which dilated the pupils perfectly, and sent a messenger for you to bring your apparatus, but you being out of the city, Dr. J. W. York kindly consented to come with it. For ten mortal hours we used it continuously. At the end of that time natural respiration was established.

"This one case, dear Doctor, is sufficient to establish its superiority over all other methods that I have any knowledge of. It speaks volumes for your instrument, and no doctor in active practice should be out of its reach. I have been in active practice for over thirty years, and I have lost patients after all the old methods known to science had been tried, and I am confident that some of them might have been saved by your method if it had been known."

CASE XXVIII.—Dr. FELL.

The following case is presented with the belief that it has some features of novelty of an interesting character; and

1st. To illustrate how forced respiration may possibly be of great value in surgical

operations associated with conditions of asphyxia;

2nd. To illustrate its value per face-mask in cases of membranous diphtheria and croup.

A resident of Buffalo, his family consisting of wife and four children, the eldest a daughter 9 years of age, a son 7 years and 3 months, a daughter 4 years, and an infant son, 2 years of age. The eldest daughter was taken ill with throat troubles and general disturbance of the system. She was quite sick, and was taken from school. On the 29th of March the eldest son was taken sick, and he, like the sister, was treated with home remedies until about 5 a.m. on the Sunday following, when the father discovered him in a cyanotic condition, breathing with great difficulty, and evidently in great danger. I was called about 8 o'clock in the morning, and arrived at the residence an hour later. On examination, I found the four children ill with diphtheria, the exudates being quite clearly marked in the eldest daughter and the son. The son was respiring with great difficulty, and his life was in immediate danger. I informed the father that there was only one thing that could be done at that time, and I recommended tracheotomy as a means of holding the case, but held out no hope of ultimate recovery of the child. The younger children were also ill, the exudates, however, not so extensive, as the disease had affected them later than the first two. The mother desired the operation to be made. I sent for Dr. Albert J. Colton, near by, to assist me, but before we were ready to make the operation the lad became unconscious from the asphyxia, and was in a very desperate condition. He was placed upon a table, the initial incision made for the operation of tracheotomy. The blood was purple. No anæsthetic was used as it was not necessary. A few moments after the first incision was made, Dr. Colton called my attention to the fact that the pupils of the eyes were dilating. I had fortunately prepared my forced respiration apparatus so as to have it for immediate use should occasion warrant, and had it not been ready I undoubtedly would have had the experience of death occurring during the operation. I immediately placed the forced respiration cup upon the face and respired

for the little fellow, *resulting in changing the blood* to a bright scarlet in the wound in the neck, and causing the *return of auto-respiration*. I had proceeded with the operation, and found it necessary before I completed it to repeat the respiratory work with the forced respiration apparatus some six or seven times, in some instances having to respire quite a little time before auto-respiration was re-established. This is a peculiarly interesting fact, associated with the question of interference with respiration through exudates in the respiratory tract, that it is possible (it may be for a short time only, and at other times save life) to retain the life of a patient, breathe for him, and tone up the system so as to enable auto-respiration to be carried on. I completed the operation and placed the tracheotomy tube in the trachea, and found it necessary before consciousness returned to respire for the lad for some time. He became conscious and breathed easily, apparently with very little trouble, for quite a period of time. The general treatment directed was the application to the throat and nasal passages of the peroxide of hydrogen, about 30 per cent. aqueous solution. The father was directed to use this with the spray apparatus occasionally in the wound in the neck if he found it necessary. The afternoon of Sunday revealed the condition the same as that which existed after the operation in the morning. The boy was moving around the house, although the respirations were at all times more or less labored. In a little while the inner tube of the tracheotomy tube would close up with the exudate, and would frequently require cleansing. The father said to me that if he would follow my directions, to merely spray lightly the wound in the neck, his boy would probably have been asphyxiated. He said he found it was necessary to place the tube of the spraying apparatus in the neck or in the tracheotomy tube, frequently to prevent the cyanotic condition from ensuing. He said: "The spray seems to liquify the membrane or the mattery substance, and it comes away in a sort of foamy, frothy state." During the afternoon the condition became worse, the membranes filling up the trachea apparently, so that Dr. Colton, who was present, applied the forced respiration *through the tracheotomy tube*, again relieving the little patient from

the severe dyspnoea which prevailed at the time. Sunday night the case progressed about the same, frequent resort having to be made to the peroxide of hydrogen to enable the little fellow to get along at all. On Monday and Tuesday, membranous casts of the tubes and trachea were coughed up and passed out of the tracheal opening. The boy retained his vigor under adverse conditions existing until Tuesday afternoon, when the exudate seemed to be increasing and interfered with the respiratory efforts, which conditions could not be overcome even by the forced respiration apparatus, and about 11 o'clock Tuesday evening the patient died from exhaustion and heart failure.

It was very clearly evidenced in the case of the boy that he would have died before I could possibly have performed the operation of tracheotomy had it not been for the forced respiration apparatus. How many cases of a serious character might be benefited, or have life retained, by such work and tided over the most serious results, cannot be foretold. It is unreasonable to assert that some patients may not recover who are as seriously sick as was this young boy.

FITCH ACCIDENT HOSPITAL CASES.

The following cases took place at the Buffalo Fitch Accident Hospital which had been supplied with one of my emergency cases. I was not present at any of them, and am obligated to Drs. John Paramenter and E. L. Ruffner of the hospital staff for the information regarding them. Dr. Ruffner stated that all the cases saved would have proved fatal without the use of forced respiration.

No detailed reports of these cases were kept, so that the reports are wanting in many interesting particulars. The variety of cases in which the apparatus was used with success indicates in part its wide range of application.

It was used in cases of carbonic oxide, opium, cocaine and chloroform; "rough on rats," and cocaine poisoning; in drowning, case of internal injury from house falling on a man, injury to base of brain, ether narcosis, etc.

CASE XXIX.

September 10, 1892. Opium narcosis. Mr. B. The Fell Method failed to resuscitate.

CASE XXX.

John Moxfeldt, 1482 Broadway. Opium. Life saved by the Fell Method. Time used not given.

CASE XXXI.

February 12, 1893. Chas. K. Storms, 256 Hoyt St. Received at 7.30 p.m., died at 3 a.m. Kept alive by Fell Method about 8 hours. A case of drowning. Patient did not regain consciousness. Oxygenation of the blood through forced respiration brought about when other methods failed, demonstrating the remarkable value of the method in drowning. It will save life in cases of drowning where those usually applied fail.

CASE XXXII.

In March, 1893, a Mr. Gleason was found suffering from cocaine poisoning. The Fell Method of forced respiration saved life after four hours' use of apparatus.

CASE XXXIII.

M. E. Peck. Opium narcosis. Two hours of Fell Method saved his life.

CASE XXXIV.

May 25, 1893. Mrs. Smith. Cocaine and chloralidine poisoning. Life saved by Fell Method.

CASE XXXV.

June 2, 1893. Genano Borneo, 78 Lloyd street. Fracture base of brain. Fell Method kept him alive 3 hours.

CASE XXXVI.

June 1, 1893. John Willis, 458 Perry street. Carbonic oxide poisoning. Fell Method used for 36 hours; patient never regained consciousness. Died of uræmic poisoning.

CASE XXXVII.

July 6, 1893. Mrs. Gross, large dose of morphia. Ceased breathing on arrival at hospital. Fully recovered after 1½ hours of Fell Method.

CASE XXXVIII.

July, 1893. Miss Fitzmaurice while under an operation, ether narcosis, ceased breathing. The Fell Method of forced respiration, twenty minutes' use, kept her alive until she could breathe for herself; recovery.

Note the following case:—

Within the last year, a lady died of nitrous oxide poisoning while in a dentist's chair in Buffalo, N.Y. Doctor M. Hartwig, who was in attendance, stated that the *respirations alone ceased*, that the heart kept up its action until asphyxia set in and the patient died. Dr. Hartwig was confident that the life of this lady could have been saved by my apparatus. He did not think of it at the time, although acquainted with its work.

CASE XXXIX.

December 26, 1892. Minnie St. Clair. Profound opium narcosis. Kept alive for forty-eight hours by Fell Method. Died of heart failure.

CASE XL.

June 2, 1893. Tony Macaroni. Internal injury from house falling on him. Fell Method four or five days on and off, when auto-respiration, shallow or deficient, would revive him. He died of pneumonia produced by inhalation of cement and debris which covered him in the fall of the house.

CASE XLI.

Abraham Hackett, 112 Main street. Opium narcosis. Died after about 10 hours' use of Fell Method. He had lain a long time before discovery.

CASE XLII.

October 1, 1892. Took rough on rats. Three or four hours of Fell Method saved life of patient.

CASE XLIII.

April 2, 1893. Miss M. Cocaine poisoning. Hypodermically injected. Life saved after about one hour's use of apparatus.

CASE XLIV.

Sept. 4, 1893. Reported saved. Particulars not obtained.

I have taken the unusual course of presenting my cases first, and general facts pertaining to my methods later, in this paper. The audience is made up of many who have not become acquainted with the subject of forced respiration, so that now it will be in order to present some facts pertaining to the history of the subject.

Medical literature abounds with very little of any value upon the subject. There is no question that experimentation previous to my own had demonstrated that it was almost useless to attempt to save life by this means, but that artificial respiration would accomplish all that could be obtained by artificial means. The opinion also prevailed that more forcible measures than those used in artificial respiration would endanger the delicate lung tissue, or that the air vesicles might be ruptured. We may instance the very generally accepted Marshall Hall's "Ready Method in Asphyxia," wherein we find the use of bellows or any *forcing* instrument strongly condemned. Even in some of our "Visiting Lists," where we might expect to find only axiomatic phrases, this rule was laid down until lately, with special stress upon the inadvisability of using any "forcing" measures or "instrument."

While forced respiration has been practised for many years, both here and abroad, upon animals in physiological laboratories, in vivisection experimentation, we have yet to ascertain that such application has taught it to be considered as of value in the saving of human life, the keeping up of respiration in the human organism, or as a means of resuscitation in asphyxia.

Can this be wondered at when high authorities inform us that artificial respiration will supply the blood with oxygen fully as well as forcible measures, or utter statements which convey just such impressions? In "Heath's Dictionary of Practical Surgery," under the head of "Suspended Animation," this statement appears:—"It is important to bear in mind that artificial respiration is purely a mechanical act, and that, if efficiently performed, air must enter the lungs even of a corpse which is hopelessly dead."

In a short discussion which ensued upon the report of my first case, presented to a section of the International Medical Congress at Washington,* several physicians took the ground that the operation of forced respiration was not needed, that artificial respiration (Sylvester's method) would have accomplished as much. With such statements accepted and supported by the mass of surgical literature, it would be ridiculous to assert that the methods employed in the physiological laboratory were considered valuable in the resuscitation of human beings in asphyxia. I will now defend the position based upon my own experience, that artificial respiration, as practised by the Sylvester method, which is conceded to be one of the best, will fail to supply the lungs with air in sufficient quantity to keep up the action of the heart in deeply narcotized subjects, where forced respiration in many cases would prove entirely successful. In one of my cases, the opinion was expressed by an experienced physician† who witnessed the operation, that the simple institution of artificial respiration, through the bodily movements required, might have proved disastrous to the patient, owing to his weakened condition through loss of blood. The contrast between the two in operation is very noticeable. In artificial respiration the patient is tugged, squeezed and rolled about, according to the method employed; while in forced respiration, he is entirely passive, and will lie for hours without moving or appearing uncomfortable as long as the latter procedure is properly kept up. In the case just referred to, the life of the patient depended upon the forced respiration for nearly a day and a quarter, and now the patient is as well as ever. The question may yet arise in desperate cases—it has already in a number of cases—as to the propriety of the early substitution of forced respiration for artificial respiration. When I had made my third operation and saved three human lives after all usual methods had failed, a gentleman, who presumably was a physician, stated in an article furnished to the *Daily Press*, that "The resuscitating bellows is as well known to every physiologist as is the use

*September, 1887.

† Dr. Carlton R. Jewett, of Buffalo, N.Y.

of the stomach pump, and that Dr. Fell learned its use with the other students at a medical college in Buffalo, where its employment was thoroughly taught by Professor M— for twenty years." If this correspondent had left out the word "resuscitating" he would have been more truthful, and if he will recall the apparatus used and the manner of using it,—which will be explained further on,—he will see his mistake. Many times during my assistantship of two years in the laboratory of the Medical Department of the University of Buffalo, when operating upon canines for the purpose of exhibiting the thoracic viscera in action, the animal has been overdosed with the anæsthetic, and the respiration would cease. Under these conditions artificial respiration was always resorted to and kept up by pressure at intervals upon the chest, after which the operation of opening the thorax would be continued, and usually among the last procedures would be the substitution of the forced respiration by opening the trachea and using the bellows. It was not "taught" that even the life of a dog could be saved by forced respirations.

It is not necessary to refer to the literature on this subject further than to state that, while *spasmodic efforts* have been made at times to make use of forced respiration, owing to the improper methods used, the results have not proved sufficiently satisfactory to prove it a valuable procedure, but, on the contrary, to condemn its use as stated.

I cannot do better to indicate the general aspect of the profession toward this operation than to modify for the present occasion the utterances in my last paper, read before the American Medical Association at Detroit.

It is now about six years since I saved my first life by systematically respiring for a human being by forced respiration. Up to the present time, about thirty lives have been saved by this means. The method has been given as great publicity as possible by publication in well-known medical journals and proceedings of societies. The fullest detail as to the arrangement of the apparatus has been described, so that the successful methods could be utilized and the apparatus prepared by anyone sufficiently interested. I have always been

willing to aid and assist anyone disposed to utilize the method. The most simple means by which the operation could be satisfactorily performed have been detailed, with a view of aiding the practitioner in urgent cases where the complete apparatus could not be obtained. However, what results have been accomplished as already stated, the saving of thirty or more human lives, have with some exceptions taken place through my own individual endeavors. Many human beings, as the reports of the daily press have indicated, have been allowed to die when preventative means existed which the members of the medical profession could have utilized, had they only taken advantage of the statements and facts freely presented to them. It may not be entirely truthful to state that the medical profession in America is ultra-conservative regarding the use of "new methods," in the face of the wild *furore* over tuberculin or the *Brown-Sequard Elixir*. The latter quickly settled itself, and the former the best authorities now appear to discredit as anything of a specific for tuberculosis. How has it treated forced respiration? — *in its success* an entirely American idea, and which from the first intelligent application gave results that could not be questioned by even those inclined to be jealous and unfriendly? It has not even been made the subject of special comment in the medical institutions of the day; so that the graduates in Medicine of but few colleges in the land are intelligently qualified to carry it out, and medical practitioners are not prepared to use it or apply it when supplied with the apparatus. This was quite interestingly demonstrated in Case No. 25 at a time when I was unable to attend, and sent my young nephew with the apparatus to assist two regular practitioners in the saving of a human life from opium narcosis. Although both residents of my native city, and the methods of forced respiration being very simple, these gentlemen were not sufficiently well acquainted with the simple details of the apparatus to use it intelligently. My student, a young man about 16 years of age, having seen it frequently in use, assumed charge, and saved the lady by his efforts. I only speak of this to show that simple methods require more or less study and consideration on the part of anyone, even capable physicians, who desires

to use them intelligently ; and I deprecate most fully the assertion of Prof. Horatio C. Wood, that any method upon which the life of a human being may hinge may be used by "unskilled persons."

Through the simplicity of the methods which may be utilized in forced respiration which have been brought to our present knowledge through my own efforts consists its greatest value to mankind — the saving of the life of many human beings has, however, been accomplished in my hands, only by the skillful use of an apparatus specially adapted for use upon man, and through practical knowledge which it has taken me some years to become satisfactorily acquainted with.

Another instance, which indicates that medical press notices and publication in State Association Transactions will not suffice to impress upon the profession the value of forced respiration as a life-saving factor, was instanced in the case of Carlyle W. Harris,* convicted of the murder of his young wife, Helen Potts, through the administering of morphia in fairly large doses. In one report of the case, it is claimed that young Harris desired or suggested to the physician who was attempting to resuscitate the young woman, that he make tracheotomy, having a vague idea only of its use. The physician appeared to know nothing about the method. In this one instance, I have no hesitancy in stating that the life of the young woman could have been saved by my method of forced respiration, and in the event of the execution of Harris (which did take place), we will have to record two lives lost through what will be some of these days almost criminal ignorance of physicians.

The public press is almost daily recording cases of death from narcotic poisoning or from drowning, in which the old methods have failed. Why not try something better, which has succeeded time and again where they have failed and must frequently fail?

Regarding the question of the originality of my method, Prof. H. C. Wood has given the impression through his statements before the Berlin Congress, that the apparatus I used was similar to that used in the laboratory upon lower animals, so that Dr. John O'Dwyer, of New York, has given public utterance to the statement which Dr. Wood first and, I think, unwarrantably,

urged. In an article in answer to Dr. O'Dwyer on the improved method of performing artificial respiration (see *Archives of Pediatrics*, May, 1892), I show nine marked practical features of difference between the apparatus which I have used successfully and the laboratory apparatus with which I saved my first life by forced respiration. I quote from my answer as follows :

"That used in my laboratory,* before I devised my forced respiration apparatus for use upon man, consisted of a large foot bellows, a rubber tube to connect it with a large brass tracheotomy tube supplied with a valve, which had to be turned by hand to let the air pass into the lungs, and turned in the opposite direction to let it pass out.

"With this arrangement, each time the valve was turned, for the inspiration as well as the expiration, the trachea was given a wrench. I have found that it makes a great difference whether you are wrenching the trachea of a dog or a living human being. I overcome this feature of the laboratory apparatus by making my tracheotomy tube and the valve which controlled the air-column in separate parts, connecting them by flexible rubber tubing. This would permit the patient to move about without endangering the trachea. This may be noted as the *first feature differing* from the laboratory apparatus.

"In the laboratory apparatus, the trachea had to be ligated around the tube, as Dr. O'Dwyer states, but *not so* in my apparatus. To prevent this, I screw to the tracheal end of the tube a larger or smaller ring, according to the size of the trachea, which fills up the trachea, preventing an excess of air from passing out by the side of the ring.

"This is the *second novel* feature of difference from laboratory methods.

"Again, I made the connection between the flexible rubber tube and the tracheotomy tube, so that it could be easily and quickly disconnected. This is an important feature, and constitutes the *third feature of difference* between my own and the laboratory methods.

"The valve which controls the air also has some valuable features: 1. With it,

* Medical Department Niagara University, Buffalo, N.Y.

* Subsequently electrocuted at Sing Sing, N.Y.

the air can pass into and out of the lungs at all times, except during the forcible inspiration. *Fourth and fifth* differences from that of the laboratory apparatus. 2. The air from the bellows is constantly passing through the valve during expiration, thus allowing the air to immediately enter the lungs from the air-valve when the piston is pressed down, without traversing the whole length of tube from bellows. With this arrangement, auto-respirations can be assisted instead of interfered with,—a factor of importance in many cases I have met with.

"This marked the *sixth* and seventh differences between my apparatus and that used in the laboratory.

"In the construction of the bellows I used a diaphragm of rubber dam (now a double bellows without perishable rubber), which equalized and produced a steady instead of an interrupted or jerky column of air, such as Prof. H. C. Wood provides in his so-called "cheaper apparatus," although I used even a more simple apparatus previously with common bellows. Here we have the *eighth* difference between my own and the laboratory apparatus.

"If I wish to present still more features of difference, I might include the air-heater, which I also have used upon cases of resuscitation of human beings. The eight features of difference mentioned above will, I trust, put a *quietus* upon the question of similarity between my own and the laboratory apparatus. What I have accomplished has resulted from *careful attention* to the details of *practical import* associated with an operation which holds human life in the balance, not by *slipshod* methods which have in the past relegated this operation to oblivion. If the saving of over thirty human lives—the record of results with which my work must so far be credited—is not an argument in support of my statements, what "under the stars" does or will give credence to human utterance? However, I have overlooked another dissimilarity between the laboratory apparatus and my own,—the face-mask—which brings the operation within the reach of the instructed unprofessional. Of course, the face-mask, everyone will admit who knows *nothing* about it, was used in the laboratories in the days of Galen. Without joking, however, this constitutes the

ninth marked difference between the laboratory apparatus and my own. and yet Dr. O'Dwyer does what appears to me an injustice, in speaking of the *two as being identical*. I desire to state that, notwithstanding an experience in laboratory vivisection work for eight years prior to my first operation of forced respiration upon man, it was not until this *first* operation that I was enabled to conceive its great value. All my experiments, the gradual unfolding through operations upon *living human beings* of the value of the face-mask, should give weight to my words above those resulting from *experimentation upon dogs*; the conditions are very different. All that experimentation upon *dogs* has revealed as to the value of forced respiration in saving life I had *previously demonstrated upon living human beings*; when I began my work, as stated, it was not even known that it would save a dog's life. Now a few words with reference to the evolution of the face-mask. I had begun the operation of tracheotomy upon one of my patients, when my attention was called to the fact that he was dying, the dilatation of asphyxia taking place. I immediately placed the tube of the apparatus in his mouth, closed the lips about it, and compressed the nostrils; inspiration then being produced, I was pleased to find the purple deoxygenized blood in the tracheotomy incision change to a bright scarlet. I had many demonstrations of this character following, which gave me the idea of the face-mask. Having a rubber cup used for cupping purposes, I fitted it to the face and saved several lives with it without tracheotomy, before preparing the one I now use."

(To be Continued.)

Society Proceedings.

PROVINCIAL BOARD OF MEDICINE.

The half-yearly meeting of the College of Physicians and Surgeons of the Province of Quebec was held on Wednesday, the 27th September, 1893, in the rooms of the Medical Faculty of the University of Laval, Quebec.

In the absence of the President, the Hon. J. J. Ross, M.D., who was unwell, Dr. L. J. A. Simard, Vice-President for Quebec, took the chair, at 10 o'clock precisely.

The Governors present were Drs. F. W. Campbell, Vice-President for Montreal; A. G. Belleau and A. T. Brosseau, Secretaries; A. Dagenais, Treasurer; and J. M. Beausoleil, Registrar; A. Vallée, W. A. Verge, C. S. Parke, A. A. Watters, Léonidas Larue, C. E. Lemieux, Côme Rinflet, L. T. E. Rousseau, P. M. Guay, Alfred Morissette, J. M. McKay, R. Craik, J. B. McConnell, the Hon. D. Marcil, J. B. Gibson, P. Cartier, R. Latraverse, H. Cholette, P. J. L. Bissonnette, F. Paré, Thos. Larue, F. J. Austin, E. C. P. Chèvrefeils and L. A. Plante.

The minutes of the last meeting were read and adopted, excepting that it was resolved to add the words "not sworn" (*pas assermenté*) opposite the name of Mr. Lucien Müller, graduate, who is there inscribed as having his license; Dr. Beausoleil, the Registrar, having it still in his possession.

Letters from the Hon. J. J. Ross, M.D., and Dr. J. H. L. St. Germain were read, regretting their inability to be present at the meeting, on account of their being too unwell.

As some of the members of the Board had suggested that the examiners for the preliminary examination should meet together some days in advance, to come to an understanding relative to the questions to be put at the examination, a letter from the Rev. Mr. Laflamme was read, asking the advice of this Board on the subject. It was decided that a meeting was unnecessary.

Dr. J. B. McConnell was named a member of the Board, representing the Faculty of Medicine of Bishop's College, in the place of Dr. James Perrigo, who has resigned.

The reports of the Assessors of the Laval University (Quebec and Montreal) were read and adopted.

The reports of the Examiners for the preliminary examination were read and adopted.

Thirty-one candidates presented themselves, and ten were admitted. The following are their names:—Messrs. J. H. L. Pagé, W. S. Picotte, Ashton Kerr, Edgar Cassegrain, Arthur Lucier, D. Romuald Picard, Oswald H. Létourneau, Fred. H. Wainwright, Wm. Kerr Brown and Jos. E. A. Poliquin.

The following Bachelors were admitted to the study of Medicine, after having been sworn on their respective diplomas:—Messrs. Alfred Simard, B.L., C. Eugène Parrot, B.S., Wilfred Lamay, B.S., Achille Comptois, B.A., Henri Larue, B.S., F. H. Pelletier, B.A., Achille Boisvert, B.A., Henri Lafleur, B.S., Joseph Pageau, B.S., Marc Rudeau, B.L., Arthur Poirier, B.A., Elias Groulx, B.L., George Cartier, B.S., F.X. Massicotte, B.A., Calixte Ethier, B.L., Ernest Primeau, B.S., F. X. Duplessis, B.S., Olivier Tourigny, B.S., H. Lennon, B.A., L. J. A. Noisieux, B.S., Elzéar Duguire, B.S., Hormisdas Deschambault, B.L.

The report of the Committee on Credentials was read, recommending that the license be given to the following graduates, who received it, after having been duly sworn on their respective diplomas:—

Laval University, Quebec.—Michel Thomas Blais, Louis Alfred Frechette, F. X. Jules Dorion, Gustave Bacon, Joseph Eugène Mathieu, Albert Alphonse Jobin.

Laval University, Montreal.—Aurèle Nadeau, François Plourde, Jos. George Elzéar Miville-Déchêne, E. R. T. Larue, L. O. Bournival, J. T. Arthur Gauthier, Isidore Laviolette, Henri Lesage, L. Z. Lajoie, L. A. Lacombe, O. C. Milot, G. E. Landry, F. X. Renaud, G. C. F. Schiller, Jules Jehin-Prume, H. Denis, Victor Geoffrion, Pierre Barrette, J. E. Gervais, R. Dazé, Zénophile Beauchamp, J. P. Gagnon, Eugène Lafontaine.

McGill University.—J. W. A. Seguin, J. W. Lawrence, T. P. Shaw, J. A. Henderson, W. J. Deeks, P. H. Phillemore.

Edinburgh University.—Walter Scott.

On the motion of Dr. Dagenais, seconded by Dr. Guay, it was resolved that Mr. F. X. Lemoine DeMartigny should be allowed to take the oath upon presentation of his diploma of Doctor of Medicine of Laval University at Montreal, which is not ready to-day.

The Committee on Credentials makes this further report:—That Messrs. F. X. Plouffe and J. A. Lapierre, who were lawfully admitted to the study of Medicine in September, 1889, and who have presented a diploma of Doctor of Medicine dated in April, 1892, that is to say, obtained before the fourth session, that they shall only obtain their licenses on proving that they have followed the course of Medicine during their fourth year, and by undergoing a further examination before this Board.

These two gentlemen having obtained from Dr. Hingston a certificate of attendance at the indoor and outdoor clinic of Laval University during their fourth year, it is resolved that they be allowed to undergo the professional examination.

Mr. A. G. Ferguson, of Vancouver, admitted to the study of Medicine in 1884, and graduated in 1887 at Queen's University, makes application for a license.

Proposed by Dr. Dagenais, seconded by Dr. Rousseau, and resolved that this Board does not accord a license to Mr. Ferguson without an examination.

Mr. Eugène Ferron, undergraduate, is also referred to the Committee of Professional Examination named by the President.

The meeting adjourned at 12.15 to 1.30 p.m.

AFTERNOON MEETING.

The President *pro tem* took the chair at 2 p.m. The Examination Committee reports that

Messrs. Ferguson, Plouffe and Lapierre have successfully passed the professional examination before the special committee appointed by the Board, and that the license be given to them. Mr. Ferron is refused.

In the absence of Dr. St. Germain, confined to his house by illness, Dr. Bissonnette laid on the table a series of amendments to the projected Medical Bill, but, as a large number of propositions of very great importance are before the chair, he did not press the reading of these amendments at present, but hoped that in the month of May next, Dr. St. Germain would be able himself to explain the advantages offered by these amendments.

Dr. Dagenais gave notice that at the next meeting of the Board he would propose:—

1. That the members of this Board shall receive for each day's attendance the sum of ten dollars and their travelling expenses.

2. That the President be authorized to administer the oath to those who take their license and their degree the day before the meeting, after the session of the Committee on Credentials.

3. That the two Secretaries, the Registrar and the Treasurer receive annually a fee of two hundred and fifty dollars.

4. That Bachelors who have a right to their matriculation without examination have the oath administered to them, either at Montreal or Quebec, at least eight days before the meeting of the Board, by one of the Secretaries, who shall make a report at each meeting of the number and the name of these Bachelors.

Dr. Bissonnette asked the following questions:—

1. Have the Secretaries forwarded to each licensed physician a copy of the Statutes and Rules of the College?

Reply.—No. There only remain twelve or thirteen copies.

2. Have the Secretaries forwarded to each licensed physician the reports of the proceedings of each sitting of the Board, containing also the names of those newly admitted to degrees and licenses, and of midwives?

Reply.—No, because no copies remain of the medical register. For the last year and a half the reports of the meetings have been published in the *Union Médicale*, and Dr. Guay adds that all the members of the Board receive this journal.

3. Has the medical register, giving the names of all physicians licensed and not licensed in the Province of Quebec, been published and distributed among the members of the profession?

Reply.—Dr. Beausoleil, the Registrar, replies that he is about to prepare an alphabetical table of the names of all licensed physicians, and that then the statutes and rules, as well as

the proceedings of the meetings, will be regularly distributed.

It was then unanimously resolved that the Board authorizes the Registrar to have printed an extract of the register giving the names of all licensed physicians in the Province.

Dr. Beausoleil read the following report of the Committee on Medical Legislation:—

PROVINCIAL BOARD OF MEDICINE.

COMMITTEE ON MEDICAL LEGISLATION.

Mr. President and Members of the Provincial Board of Medicine.

I have the honor to present to you the report of the Committee on Legislation appointed by you at the half-yearly meeting in May last.

Your Committee sat on the 7th of June and on the 5th of July last.

The labors of your Committee have been directed towards the creation of a Provincial Board of Examination, with the object of obtaining reciprocity of licensing with Ontario, of protecting the profession, and of gaining information.

After considerable discussion, Dr. Rottot, delegate of the Medical Faculty of the University of Laval at Montreal, suggested to the Committee to think over the following proposition, seconded by Dr. Chèvrefils:—

1. To augment the powers of the Assessors of the Medical Faculties of the Province.

2. To increase the number of the Assessors *pro rata* to the number of Committees of Examination of the Medical Faculties, up to a complement of six.

3. To permit the Assessors of the Medical Board to interrogate those candidates whose examination has appeared to them to have been unsatisfactory.

This proposition, submitted to the Universities and to the Faculties of Medicine, has resulted in the following replies:—

UNIVERSITÉ LAVAL,
QUEBEC, 16th June, 1893.

DR. SIMARD, Professor Université Laval:

SIR,—In reply to the enclosed communication of the Committee on Medical Legislation, Monseigneur the Rector desires me to say that Laval University has no objection to the Assessors interrogating the candidates at the examinations of Bachelor of Arts and of Doctor of Medicine.

With respect, I remain, &c., &c.,

J. C. K. LAFLAMME,
Secretary Laval University

Dr. Rottot makes known the position of the Faculty which he represents as follows:—

SCHOOL OF MEDICINE AND SURGERY OF
MONTREAL, MEDICAL FACULTY OF LAVAL
UNIVERSITY, MONTREAL,

MONTREAL, 1st July, 1893.

DR. BROUSSEAU, Secretary to the Provincial
Board of Medicine, Quebec :

MR. SECRETARY,—In the event of Dr. Rottot, representative of the Medical Faculty of Laval at Montreal, being unable to be present at the meeting of the 5th July of the Committee on Medical Legislation, and to make a report in the name of the Faculty, I beg to inform you officially that the motion Rottot-Chèvrefils, adopted by the aforesaid Committee, has been submitted to the Laval Faculty of Montreal on the 15th and 20th June, 1893, and has been adopted.

With respect, I beg to remain, &c., &c.,
H. E. DESROSNIERS,
Secretary.

E. M. & C. of Montreal, Fac. Med. Univ. Laval.

Dr. R. Craik reported verbally that McGill University refused to give to the Assessors of the Medical Board the power to interrogate the candidates at the examination in Medicine.

Dr. McConnell, representative of Bishop's College, reported that it had been impossible to have a meeting of the Faculty, but that he was under the impression that his University would oppose any increase in the powers of the Assessors.

On the proposition of Dr. Gibson, seconded by Dr. Brosseau, the Committee approved of the proposition Rottot-Chèvrefils, and referred it to the Medical Board at its semi-annual meeting of September.

The votes in favor of this resolution were:—Hon. Dr. Marcil, Drs. Rottot, Brosseau, Chèvrefils, Simard, Gibson and Beausoleil. Against this resolution:—Drs. Craik and McConnell.

It was then proposed by Dr. Brosseau, seconded by Dr. Chèvrefils: That in the event of the motion Rottot-Chèvrefils not being carried, Dr. Simard be requested to forward to the Committee of Legislation his proposition relative to the facilitating of reciprocity of license between this Province and that of Ontario.

This proposition reads as follows :

Whereas, it appears that the Board of Medicine of Ontario would be disposed to accord reciprocity to the diploma of licentiates of the College of Physicians and Surgeons of the Province of Quebec, provided that this diploma shall have been obtained by an examination held by the Board of Physicians and Surgeons of the Province of Quebec.

And whereas, in consequence of the uniform formula of the diploma of the license of the Board of the Province of Quebec, those who have already passed, or who shall pass, an ex-

amination before the said Board would not be able to prove *prima facie* their right to such reciprocity.

Be it resolved, that the formula of the license of this Board shall for the future indicate if it has been conferred upon the presentation of a University diploma, or if it has been given after an examination before this Board.

And moreover, be it resolved to ask the Medical Board of Ontario, and of the other Provinces, reciprocity for those physicians of the Province of Quebec who are of the latter class—that is to say, those who have passed their medical examination before this Board.

The whole respectfully submitted.

DR. D. MARCIL, President.

DR. J. M. BEAUSOLEIL, Secretary.

Proposed by Dr. Beausoleil, seconded by Dr. A. Dagenais, and unanimously resolved, that the report of the Committee on Legislation be adopted.

Proposed by Dr. Beausoleil, seconded by Dr. Dagenais, and resolved, that the Secretaries of the Medical Board be authorized to sign an agreement with the authorities of the Universities to put in operation the Rottot Chèvrefils resolution, adopted by this Board, which reads as follows:—

“To permit the Assessors of the Medical Board to interrogate those candidates whose examination shall not appear to them to have been satisfactory.”

In case of the motion Rottot-Chèvrefils not being carried, Dr. Beausoleil proposed, seconded by the Hon. Dr. Marcil:—

1. That it is in the interest of the public to assure to the people of this Province a medical service worthy of confidence.

2. That it is the duty of the Council of the profession (Medical Board) to assure itself of the scientific proficiency of the candidates for the diploma of practice (license).

3. That every endeavor to obtain the exercise of this power of control has been frustrated by the opposition of the Medical Faculties.

4. That all efforts towards reconciling the interests of the Universities and those of the public and of the profession have been fruitless (in consequence of the refusal of certain Faculties to conform to the motion Rottot-Chèvrefils).

5. That this Board considers that it is the duty of the Government to take in hand the interest of the people in general, and of the profession in particular.

6. That a new legislation be adopted, so as to give to the corporation of the College of Physicians of this Province the control of the entry of its future members (admission to practice).

Dr. Beausoleil, Registrar of the College, read,

clause by clause, the notice of motion given by him at the semi-annual meeting of last May to the Board.

Proposed by Dr. Beausoleil, seconded by Dr. Dagenais, and

Resolved (1), That the fee for the certificate of admission to study shall for the future be twenty dollars (\$20), in place of ten dollars (\$10).

Resolved (2), That the fee for the Provincial license shall be forty dollars (\$40), in place of twenty dollars (\$20).

Resolved (2a), That the regular fixed meetings of the Board of Governors shall be held the first Wednesday in July and the last Wednesday in September of each year; the meetings in July in the City of Montreal, and those in September in the City of Quebec.

Resolved (3), That the following subjects shall be part of the programme of the examination for admission to the study of Medicine:—Botany, Chemistry, Elementary Physics and Intellectual Philosophy.

Resolved (4), That the medical studies be modified in the following manner:—1. Normal Histology. 2. Descriptive Anatomy. 3. Practical Anatomy. 4. General and Special Physiology. 5. Hygiene. 6. General Pathology. 7. Medical Chemistry, Theoretical and Practical. 8. Internal Pathology. 9. External Pathology. 10. Materia Medica and Therapeutics, Practical Pharmacy. 11. Obstetrics and Pathology of Early Infancy. 12. To have been present at at least twelve confinements at a maternity hospital, and to have followed a course of clinical obstetrics of forty-two lessons, or two courses of twenty-four lessons. 13. Medical Clinics and Surgical Clinics, three courses of eight months, or four courses of six months, in an hospital containing at least fifty beds for each of the subjects. 14. Medical Jurisprudence. 15. Instruction at the Morgue. 16. Mental and Nervous Diseases. 17. Diseases of Children or Pædiatrics. 18. Gynæcology. 19. Histology, Pathology and Bacteriology. 20. Operative Medicine and Minor Surgery. 21. Medical History and Medical Ethics. 22. Ophthalmology and Otology. 23. Rhinology and Laryngology.

That the professional examination made by the Faculties and the Board shall be conformed to the above programme.

Resolved (5), That in place of two Assessors to the Faculties of Medicine, the Board shall name not less than two and not more than six Assessors for each Faculty.

That in future the Board shall only supply Assessors for the annual examination of each Faculty.

That in case of any Faculty wishing to have the services of the Assessors for a supplementary examination, notice must be given thirty days beforehand to the Secretary of the section

to which it belongs, and remit the amount of the fees to the said Assessors.

The Assessors shall have the right to be reimbursed for their travelling expenses, and, moreover, a fee of ten dollars (\$10) for each day that they are detained by their duties.

Resolved (6), That it shall be part of the duty of the Assessors to be present at the examination of each student. Before proceeding with an examination, the Assessor shall enter in a book *ad hoc* the names and surnames of each candidate, the date of his certificate of admission to study, the title of each subject for which he has a certificate of attendance, and he will note in writing his observations in such a manner as to show cause for his report. The notes of the Assessors shall be the property of the Medical Board.

Resolved (7), That the Assessor shall only hear the examination of such candidates as shall have fulfilled the following conditions: For the primary examination, he must have a certificate of admission to study for the space of at least two University sessions in a Faculty of Medicine recognized in this Province, conformably to the regulations of the College of Physicians and Surgeons of the Province of Quebec.

The primary examination shall include Normal Histology, Descriptive and Practical Anatomy, Bacteriology, General and Special Physiology, Hygiene, General Pathology, Medical Chemistry, Theoretical and Practical, and Practical Pharmacy.

Any candidate who shall have failed in Anatomy or Physiology shall have to undergo the entire examination afresh.

Resolved (8), That the final examination shall include Internal and External Pathology, Materia Medica and Therapeutics, Obstetrics and Pathology of Early Infancy, Medical Jurisprudence and Toxicology.

No candidate shall be admitted to the final examination without having passed his primary examination to the satisfaction of the Assessors of the Provincial Medical Board.

Resolved (9), That the following subjects of special instruction shall be part of the examination questions in the practical examination:—Mental and Nervous Diseases, the Diseases of Children, Pathological Histology, Gynæcology, Operative Medicine and Minor Surgery, Ophthalmology, Rhinology, Otology and Laryngology.

No candidate shall have the right to pass this final examination before the Assessors without he shall have studied in a University during at least four sessions, starting from the date of his certificate of admission to study: so as to have in all points conformed himself to the statutes, rules and regulations of the College of Physicians and Surgeons of the Province of Quebec.

Resolved (10). That in giving notice of the date of their annual examination, the Faculties shall also inform the Secretary of the section to which they belong, of the names of the candidates for examination, both primary and final.

Resolved (11). That the Assessors shall only be required to go to the Faculties when these latter shall be ready to pass consecutively all the students who shall have entirely conformed to the requirements of the statutes and regulations of the College of Physicians and Surgeons of the Province of Quebec.

Proposed by Dr. Beausoleil, seconded by Dr. M. Guay, and resolved, that Dr. J. A. Duchesneau, of Terrebonne, be named a member of this Board, to replace the late Dr. W. Prevost.

Proposed by Dr. Beausoleil, seconded by Dr. Dagenais, that the resolution adopted by this Board in May, 1892, concerning admission to the study and to the practice of medicine, enters this day fully into force, without consideration for the permits to study obtained before 1892, and that the Secretaries of the Medical Board inform all the medical corporations of the Dominion of this rule.

That the present resolution shall only be applicable to those Provincial Boards of Medicine with whom the Board of this Province has not established reciprocity of license.

Unanimously adopted.

Proposed by Dr. Brosseau, seconded by Dr. Beausoleil, and resolved, that the following names be added to those of the former Assessors:—Drs. J. Gauthier, H. Cholette, A. R. Marsolais, F. Paré, J. Girouard, P. J. L. Bissonnette, W. Grignon, J. A. Duchesneau, J. M. Beausoleil, E. P. Lachapelle, Côme Rinfret, C. S. Parke, W. A. Verge, P. M. Guay, Thos. Larue.

On the motion of Dr. Guay, seconded by Dr. Brosseau, a vote was passed thanking Laval University for the gratuitous use of their rooms.

The meeting adjourned at 4.15 p.m.

—*Translation of the Official Report in l'Union Médicale.*

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, April 28th, 1893.

JAMES STEWART, M.D., PRESIDENT, IN THE CHAIR.

Rupture of the Pulmonary Artery—Dr. WYATT JOHNSTON exhibited the specimen, which, he said, illustrated a very frequent mode of sudden death. The patient, an elderly man, was overtaken suddenly on the street by a hæmorrhage, and when seen by a physician was practically in a dying condition. He was taken

to the General Hospital, where he died. Owing to certain features of the case, especially owing to the body not being identified, an autopsy was ordered by the coroner, to make sure of the cause of death.

A quantity of blood was found about the mouth and fauces, and a large clot lay at the back of the pharynx. Blood was found in considerable quantities throughout the bronchial tubes, and also in the finer bronchi. In the right lung there were spots of hæmorrhage into the lung, small pulmonary apoplexies, apparently due to the rupture of little blood vessels, caused by extraordinary respiratory efforts. The cause of death was easily found. At the apex of the left lung, which was adherent to the pleura, was found a cavity as large as a goose-egg. Springing from the wall of the cavity could be seen a small aneurysmal sac, at one point of which was seen a rupture which was partly closed by a blood clot. An interesting feature was the state of the lining membrane of the cavity, which was covered with a grayish, ragged material, which upon removal left a smooth membrane behind, evidently a distinctly pyogenic membrane. The fibrinous flocculi on the surface were evidently the results of previous hæmorrhages, for as the blood exuded from the smaller vessels into this cavity in considerable quantities on several occasions, the walls became covered with fibrin.

This form of lesion is the commonest cause of death from pulmonary hæmorrhage, the other principal causes of hæmoptysis being rupture of the wall of an artery without the previous formation of an aneurism, or, less frequently, hæmorrhage from the granulating membrane lining the cavity. This latter, however, is more likely to give rise to small, slight hæmorrhages than to serious complications.

This case further shows the advantage of doing an autopsy on persons who die under mysterious circumstances. In this case it was thought that there might have been some foul play, some chest injury, to account for the hæmorrhage; but when the result of the autopsy was made known, the coroner decided that there was no necessity for an inquest.

A Case of Addison's Disease.—Dr. A. D. BLACKADER showed a patient suffering from what he believed to be Addison's disease, a disease characterized by two or three very prominent features: First, a discoloration of the skin, which in this patient is fairly well marked. More than that, it has the minute spots of discoloration which have been pointed out by Greenhow as being tolerably characteristic. He has also, on the front of the chest, pretty well marked patches of leukoderma. The symptoms, too, are fairly characteristic. The patient first entered the hospital complaining of asthenia, breathlessness, palpitation on slight exertion, inability to walk or perform work of any severe

kind. At present he is scarcely able to walk across the hospital ward without getting out of breath. There is also associated with these symptoms a tolerably moderate amount of anæmia, his blood now containing only 2,500,000 red capsules to the cubic millimetre.

One other symptom which has been put down as characteristic this man has not yet had, viz., symptoms of gastric irritation; there has been no vomiting, no diarrhœa. Still, considering the short time the patient has been complaining of any symptoms at all, that is only from about the middle of February, we are scarcely warranted in expecting the disease to have reached its full development.

With reference to the treatment, Dr. Blackader proposed to treat the case by feeding with finely minced supra-renal capsules. He was led to do so by the similarity which can be traced between this disease and myxœdema, which similarity is especially touched on by Dr. Osler. In both we have distinct histological changes met with in the tissues, being in the one an increase in the mucin, in the other an increase in the pigment of the cells; and they are both accompanied by marked nervous phenomena. In myxœdema we have mental dullness, in Addison's disease profound asthenia. We may also trace the likeness still further, when we come to consider the history of the respective glands which give rise to them. In myxœdema, before the connection was made out between it and the removal of the thyroid, it was stated that that gland was of no account in the economy, and that it could be removed without giving rise to any serious symptoms. Now, the same thing has been alleged of the supra-renals, and the question is whether they have any use in the economy, and whether their administration by the mouth will prove of any service in cases where the glands themselves are diseased.

Dr. MIGNAULT referred to a case of this kind which had occurred many years ago in the General Hospital under the care of Dr. Osler. The patient, a young man, was brought there with a discoloration of this kind; everyone was much surprised at the condition, and many theories were advanced to account for it. Dr. Osler finally diagnosed the case as Addison's disease. The young man only lived three or four weeks. Both supra-renals were found diseased, thus confirming the diagnosis.

Dr. G. P. GIRDWOOD could just recollect having seen the case alluded to, and as far as he could remember the color was very much the same as in this case.

Dr. ADAMI briefly noted a few cases of the disease which he had the opportunity of observing. One of these was at the Addenbrooke's Hospital at Cambridge, England, a young woman, presenting all the cardinal symptoms of the disease, who, nevertheless, to the surprise of all, recovered under the arsenic treatment.

He called attention to an autopsy held by him at the General Hospital the previous week, in which one supra-renal had become a caseous tubercular mass, the other being unaffected, and neither the history of the patient nor the post-mortem appearances yielded the slightest indication of Addison's disease. He referred to this case inasmuch as recently there had been recorded instances, contrary to the general rule, of Addison's disease associated with cancer, etc., of one supra-renal. He agreed with Dr. Blackader that the treatment by supra-renal juice was well worthy of being tried; the eminent success of Dr. Murray's plan of treatment of myxœdema by thyroid extract rendering it advisable that other extracts should be tested in other more or less parallel diseases, though he deprecated the excesses that were already being recorded in the employment of body juices.

Dr. FINLEY knew of two cases of Addison's disease which had occurred at the General Hospital within a few weeks of each other. The first case was one in which the pigmentation was very marked, as the patient came in late in the disease. There was excessive nervous prostration, vomiting and fever, the patient dying in a few days.

The other case was one in which pigmentation was absent, and therefore it was not possible to make a diagnosis during life. Yet the train of symptoms was markedly similar in both cases—vomiting, nervous prostration, delirium and death.

He recollected a case in which he had performed an autopsy for the late Dr. Howard. There was an injury involving the right supra-renal, but without any of the symptoms of Addison's disease.

Dr. WYATT JOHNSTON remembered the two cases referred to by Dr. Finley, and which were called Addison's disease in the hospital. One of the patients showed a considerable amount of bronzing of the skin; they both suffered from diarrhœa, vomiting, nervous prostration, and died, one of them rather suddenly. He had had some doubts about the correctness of the diagnosis. However, they have been looked upon as Addison's disease for some time. As to the condition of the supra-renals, in the one case there was slight tuberculosis, slight caseation; in the other there was none; at all events, they were obscure cases, certainly not typical ones. He had examined the semi-lunar ganglia, with negative results, as far as finding any special fibrosis or atrophy of the nerves was concerned.

Dr. KIRKPATRICK referred to a man who came to the hospital complaining of general asthenia, and after some time, developing illusions, he was sent to the Verdun Hospital for the Insane. The asthenia increased until the man died, but shortly before death he developed marked bronzing of the face. At the autopsy

the only lesion that could be detected was marked caseation of one supra-renal capsule.

Dr. McCONNELL said that the treatment which Dr. Blackader is about to try seems to be in keeping with the principle which is supposed to exist, viz., that the organs of the body seem to be amenable to their own secretions when taken as remedies. The idea originated in Brown-Séquard's elixir of life. A great deal of fun was made of Brown-Séquard at the time, but his remedy does not appear to be discarded even yet. Some short time ago Dr. Hammond, of New York, announced a new remedy for heart troubles, which he calls "cardine," and which he thinks will prove a strong tonic for weak and fatty degenerated hearts. All have read of the effects of the juice of the thyrid gland in myxœdema, which is simply carrying out the same idea as that now about to be tried by Dr. Blackader. We all will look forward anxiously for the results of this application.

Dr. J. E. MOLSON asked if slow pulse is not a sign frequently found in Addison's disease.

Dr. BLACKADER, in answer to Dr. Molson, said that in all the literature he had read on this subject he had not noticed any such symptoms dwelt upon. With reference to the cases Dr. Adami alludes to of one gland only being affected, he understood that both glands are invariably affected in Addison's disease. However, it is most likely one gland becomes involved before the other, so in the post-mortem room one supra-renal may be found to have undergone destruction, while its fellow is only in the early stage. Both Addison and Wilkes and others in Guy's Hospital considered it necessary for both glands to be affected. Cases where only one gland is involved do not seem to stand very severe criticism, but recent investigations seem to show that there may be symptoms developed when only one gland is affected. Of course if one gland is perfect, it should be able to do the work of both, and there should consequently be no Addison's disease. If, however, this is the case, if with a perfect supra-renal capsule in the body we have still Addison's disease, my remedy is not likely to prove of much account, as that would destroy the theory that it is the want of this tissue that gives rise to these symptoms.

Sclerosis of the Brain.—Dr. JOHNSTON exhibited this specimen, and gave the following report of the autopsy: Head only examined; nothing unusual about the scalp or external surface of skull cap; veins moderately full of blood; skull cap of ordinary thickness; tables not denser than normal; veins of diploe moderately full; in inner surface no irregularities or abnormal appearances; dura only slightly adherent to the calvarium, which is removed with ease; outer surface of dura normal; longitudinal sinus contains soft, dark, non-adherent

clot in its posterior half. On reflecting dura, the pia over both hemispheres is thickened, and has an opaque, milky appearance. Beneath the pia is excess of clear fluid, somewhat distending the membrane in the regions corresponding to the sulci. Moderate adhesion of dura to the pia along the convexity. Pacchionian bodies not unusually large; brain removed with ease; slight excess of cerebro-spinal fluid escapes during removal; dura at the base normal; sinuses normal. In the petrous bone on both sides the upper surface presents several small areas 0.1 to 0.2 inches in diameter, where a small cavity exists, only separated from the cerebral cavity by a thin, transparent, fragile membrane, readily broken with the point of an ordinary dissecting forceps. On examining the brain the contour appears to be normal; the vessels of the base are normal in size and arrangement, and are free from obstruction. There appears to be some thickening in the pia arachnoid extending out into the sylvian fissure. No signs of hæmorrhage and no appearance at all suggesting the presence of old hæmatin pigment. Over the convexity the pia is greatly thickened and detached from the convolutions with much difficulty; when removed, the convolutions appear to be normal in size and outline; no cysts. There is no trace of localized disease in the convolutions; in regard to this point the third left frontal and motor areas of the cortex were examined with special care and with perfectly negative results.

On opening the lateral ventricles they are found to be of normal size. The choroid plexus is somewhat denser than normal, and is slightly adherent to the surface of the ventricle at the head of the right corpus striatum. Adhesions between the floor and the roof of the ventricle also exist in the region of the corpora quadrigemina, and the fornix is reflected with some difficulty. The ependyma of the lateral ventricles is smooth, but on passing the finger over it the ganglia at the base feel denser than normal. The fourth ventricle appears widened, the ependyma covering its surface is thickened and covered with minute translucent grey granulations. The cerebellum is found to be normal.

On dissecting the ganglia at the base of the head of the right corpus striatum in the anterior one inch is smooth and of a dull greyish-yellow color in patches. This region cuts with greatly increased resistance, and leaves a smooth, pale, firmly resisting surface. On incising the substance of the hemispheres, the white substance is found to be moderately firm and its vessels contain but little blood. The grey matter of the cortex throughout the whole of both hemispheres is greatly increased in consistency, and cuts with great resistance; in cutting it, a slight creaking of the knife is constantly noticed. On the cut surface the grey matter forms

everywhere a raised ridge, projecting above the level of the adjacent white matter. To the touch the grey matter feels firm and dense, the consistency being about three times that of normal grey matter. The color of the grey matter is somewhat deeper and redder than normal and the thickness of the cortex is everywhere considerably reduced, being on the average 1 mm. and the maximum thickness being only 2 mm. This condition appears to be diffused uniformly throughout all parts of the cortex, and no focal lesions can be detected.

Microscopical examination.—Throughout cortex, ganglion cells reduced in size and fewer in number; stroma dense, and contains more nuclei than normal; no infiltration about smaller arteries; section of cervical cord in upper cervical region shows no sclerosis.

Remarks.—It is difficult to say to what extent syphilis is to be held responsible for the state of the cerebral cortex in this case. A diffuse cerebral sclerosis with atrophy of the nerve elements proper is thought by some to be always due to syphilis. Others only recognize syphilis when marked endarteritis is present. The absence of arteritis in any degree sufficient to explain the change seems to lead to the inference that while the syphilitic poison possibly was the cause of the lesion in the right corpus striatum, its irritative powers had probably passed away at the time of death. The lesions in the brain do not appear to be definitely syphilitic, though the absence of syphilis can hardly be held proved where no examination of the other organs was made.

Dr. PERRIGO gave the clinical history. In November he was called in to see the patient owing to the result of his falling down the stairs. At that time the appearance of his face was so peculiar that it was thought he had been drinking, but afterwards this was found to be a mistake, he was an abstemious man, and had been so for years; but in the course of the enquiries, a history of syphilis occurring some 50 or 60 years ago was obtained. His condition then and afterwards showed something as follows: In walking, while he could perfectly co-ordinate, he would suddenly have to sit down, as if struck on the head, owing to loss of power in his legs; it was this that caused him to fall down stairs. He was ordered the iodides, and that treatment was followed by a gradual improvement. Then he developed epileptiform attacks and some loss of memory and defects in the power of speech. This last was not of an aphasic nature, nor yet one of articulation; he seemed to stop in the middle of a sentence or middle of a word and go on to something else, all the time being unconscious of this defect.

On being sent to the hospital he appeared to improve, his speech became better, memory better, epileptic attacks ceased, the attacks of

sudden sitting down became less frequent, and he was discharged practically a well man. In regard to the iodide treatment, at one time he was taking as much as 320 grains during the 24 hours.

The patient then went on a trip to Baltimore, and while there he grew worse. His defect of speech returned, patellar reflexes were gone, memory was lost, epileptic attacks returned, and he appeared to lose at times control of his muscles. In going to bed, for instance, in sitting on the edge of the bed, his legs would go through a series of irregular motions. He never, however, had any difficulty in feeling the ground. He then became maniacal, and finally died.

Dr. LAFLEUR asked if the epileptic attacks were those of true epilepsy or of a Jacksonian character. The reason for asking was because he had seen a precisely similar case, in which the same diagnosis was made—cerebral syphilis with meningitis, right-sided paraplegia beginning in the foot and gradually travelling up the leg. The patient was put on anti-syphilitic treatment, without much result. At the autopsy there was no evidence of syphilis in the brain or viscera, in fact, no obvious lesion of the brain. But on more careful examination, just such a condition as **Dr. Johnston** has described was found—diffused sclerosis, narrowing of the cortex. There was no lesion of the basal ganglia. There is a close similarity between the cases, both from the clinical history and the autopsy.

Dr. ARMSTRONG related the condition of the patient while in hospital. His symptoms were mixed ones. He was maniacal, and required a man to keep him in bed. His symptoms were largely irritative; noise would irritate him; lifting an arm would cause general spasms of the body. The right side of the body was distinctly weaker than the left; the grasp of his right hand was nil, while that of his left was fair. In addition to these he was unconscious for two or three days, no questions could be asked at all, and when consciousness and speech returned he was distinctly aphasic. Not being able to get any information from himself, the diagnosis had to be made from the history and remarks of his friends. A diagnosis of cerebral syphilis had been made in London, and on the strength of this he was put upon the iodides and mercurial inunctions. Improvement took place, the power returned to his right side, his memory returned, speech returned, and general condition was one of apparently very considerable improvement, supposed to be in consequence of the anti-syphilitic treatment.

Cirrhosis of the Liver with Jaundice.—**Dr. WYATT JOHNSTON** exhibited the specimens from a case under the care of **Dr. Perrigo** and read the history of the autopsy as follows:

Autopsy 28 hours after death.—Body of a large elderly woman; abdomen distended. Body intensely jaundiced over the entire surface of deep bronze tint; conjunctivæ deep yellow. Moderate rigor mortis and lividity. Subcutaneous fat in fair amount of deep bronze-yellow color; in peritoneum, about three quarts of clear, bile-stained fluid; peritoneum smooth; omental fat abundant; colon and small intestines considerably distended; liver does not extend beyond costal border. Spleen very large, over 300 gms.; on section dark and abundant; consistency not increased. Kidneys both appear to be nearly double normal size, are soft and deeply jaundiced. The cortex appears swollen; supra-renals normal, pelvic viscera appear normal. Stomach contains about a tumblerful of brownish-black fluid. Mucosa reddened and shows signs of ecchymosis; mucosa soft, not thickened. Duodenum contains dark, slaty, greyish fluid. Bile papilla normal in appearance and no signs of catarrh in its neighborhood. On slight pressure on the bile duct a clear, almost colorless greyish mucous fluid readily flows out of the papilla. Bile ducts rather large, walls thin; their mucosa appears normal; no increase of connective tissue about the ducts; glands in portal fissure not increased. Gall-bladder contains a tablespoonful of pale greyish, thin fluid, not in the least bile-stained. Hepatic artery normal; portal vein rather small in calibre, but appears normal. Liver weighs 1,900 gms., is of a deep yellow-brown color, mottled with small pale yellow spots, evidently fatty. The surface is uneven and has a fairly well marked hob-nail appearance, the projecting portions of tissue being separated by fibrous strands running in all directions between the lobules. On section the organ cuts with but slightly increased resistance and to the touch does not feel very dense; the surface yields a greyish pulp on scraping; pancreas normal. Intestine contains greyish feces; near the ileo caecal valve the mucosa is normal. No enlargement of retro-peritoneal or retro-thoracic glands; lungs crepitant. Heart not opened. Brain not examined.

Microscopic examination of liver shows intense jaundice of the hepatic cells in places, with marked fatty infiltration irregularly distributed. Increase of fibrous tissue, which penetrates between and into the acini. No changes in connection with the bile ducts; no proliferation of epithelium or connective tissue in connection with the smaller ducts.

Remarks.—The rarity of icterus as a complication of cirrhosis of the liver makes it worth while to study carefully every case of this kind met with. In the present instance no changes were discovered at the autopsy or by microscopic examination to show that the jaundice was obstructive or had anything to do with the

anatomical changes in the bile passages, and is therefore not the biliary cirrhosis of French writers. According to Fagge, icterus occurs in about 10 per cent. of all cases of cirrhosis of the liver, and is almost always a bad omen.

Dr. PERRIGO said that the patient had been under his observation for the last 14 or 15 years. She was a lady who was a good illustration of the difficulty of obtaining a reliable history in family practice. It was only the day after the autopsy that he succeeded in eliciting a true account of her private habit of dram-drinking. The case shows well to what an extent tippling can be carried on and yet kept secret from both husband and family. The patient was of a remarkably despondent temperament, always looking at the blackest side of every question. She was the subject of chronic rheumatism as well as chronic bronchitis, the latter, however, improving during the last year or two. About nine weeks ago, shortly after having a cataract removed from her right eye, she developed jaundice. Previous to that, she had morning vomiting for six or seven days. The jaundice continued for six or seven weeks, but finally it disappeared under treatment, and remained away for three or four weeks. During this interval, however, she did not pick up her strength as well as might have been expected. Suddenly the jaundice reappeared and became very intense, and just as suddenly, a couple of weeks before death, ascites appeared. The latter rapidly filled up the peritoneal cavity, and impeded respiration so much that it was thought advisable to tap her, which was done a few days before death, and several ounces of fluid drawn off. This, however, was not followed by much improvement, as she finally became comatose, and died.

From her facial expression he had suspected tippling, but always received such positive assurances to the contrary that he was obliged to put that possibility aside. During the last five or six months she had a peculiar drawn expression that made him suspect malignant disease.

Dr. BLACKADER endorsed Dr. Perrigo's remark of how frequent the habit of tippling exists in ladies in whom one can find no reasonable signs of it, ladies who had been secret tipplers for years, and yet in whom he was unable to detect the slightest symptoms of it; the tongue was clean; no excitement in conversation was ever evinced, no flushing of the face, and, in fact, nothing which might point to the real cause of their trouble, namely, alcoholism.

The PRESIDENT suggested an examination of the urine for alcohol in such cases, as a means of arriving at the diagnosis.

Appendicitis Occurring in a Patient with Sacro-Iliac Disease.—Dr. ARMSTRONG related the following case: A young girl, 14 years of age, came to the hospital with a letter saying

that nine months before she fell downstairs. Nothing was thought of the injury at the time, until about three months afterwards she developed a tumor in the right iliac fossa, accompanied by a temperature running about 103°. This condition improved, the temperature became normal, she was considered convalescent, but the right thigh became flexed and has remained so.

As she appeared in the hospital clinic, as to diagnosis, two very good arguments could be made out: one man could argue very strongly in favor of sacro-iliac disease; another man could produce just as convincing evidence in favor of appendicitis. In favor of the first we had the history of an injury, tubercular family history, flexion of the thigh, lateral curvature of the spine, that peculiar hitching up of the right side of the pelvis, which on looking at it from behind makes the perfect picture of sacro-iliac disease. In favor of the second we had the tumor, the high temperature, the pain, nausea, vomiting, etc. To settle the matter he decided on an exploratory incision, and on doing so very readily came down upon the appendix lying in a little pocket of pus. At this point it seemed quite clear that the case was one of appendicitis. However, after the appendix was removed and everything made nice and clean, he noticed that the right iliac fossa seemed to come forward more than usual, and on closer inspection decided there was evidence of inflammatory products within the sheath of the psoas muscle. On making another incision, then, this muscle was found throughout nearly the whole of its extent infiltrated with the ordinary cheesy material, commencing near the crus of the diaphragm and extending down to Poupart's ligament, where, no doubt, if left long enough, it would ultimately have pointed. Over the sheath of the psoas, and attached to it, the appendix was lying; at one spot there looked as if some necrosis had taken place, but there was no actual communication between the abscess in the appendix and that in the psoas.

So that, as may be seen, the evidence in favor of both conditions was well founded, the truth being that here we had a case of sacro-iliac disease, in the course of which an appendicitis was developed. The patient made a good recovery after the operation; her temperature is normal, and she appears to be doing nicely in every respect.

Dr. ADAMI regretted that his investigation had not been as thorough as he would have wished. Examining some of the cheesy substance, however, he succeeded in finding some bacilli. In the appendix he found some chronic thickening, the outer wall being especially thickened and congested. On making the bacteriological examination, he found, in addition to inflammatory products, a large

number of diplococci, micrococci and other pyogenic organisms; so that bacteriologically he came to exactly the same conclusion as did Dr. Armstrong clinically, viz., that in the appendix there was a simple inflammation, as shown by the presence of the ordinary pyogenic organisms, while in the cheesy matter we had tubercle, as shown by the presence of the bacilli.

Poisoning by Paris Green.—Dr. WYATT JOHNSTON, exhibiting the specimens, said that lately this usually quiet community seems to have taken to poisoning itself with Paris green, as within the past month four or five cases of this nature have come before the public. On Tuesday last, two inquests were held on cases of this nature by the coroner. In one case a large dose was taken about one week before death; the duration of life after the inception of the poison was due to the treatment which was inaugurated very soon afterwards, the pump and emetics being employed with a fair degree of success. In the second case a smaller dose was taken, but owing to the man not coming under treatment for some considerable time afterwards, he died much sooner than the first one.

The first specimen is from the case in which a relatively small amount of poison was taken, and in which little after-treatment was employed. There is intense engorgement of the vessels and ecchymosis of the stomach walls. As a rule, in arsenical poisoning the changes in the stomach wall are not nearly so profound as one might expect to meet with according to the descriptions given in the text-books. In this case, however, there is an extreme degree of ecchymosis of the mucosa, hæmorrhages into the deep mucosa. The duodenum also shows intense congestion, which evidently has gone as far as complete stasis. More or less hæmorrhage has also occurred in places throughout the intestinal tube, and well down in the jejunum, particles of Paris green were found.

The other specimen is one in which the dose of the poison was larger, but where the contents of the stomach had been speedily evacuated, death occurring one week afterwards. There is some congestion, although the reddening in the specimen is more pronounced than at the post-mortem, owing to the action of the fluid in which the specimen was preserved. There is no ulceration here, no necrosis, simply a congestion of the mucosa. Congestion in this case, however, is not a symptom diagnostic of poisoning. The man just before taking the poison had been on a rather prolonged spree, and was besides an old drunkard, and under these circumstances some congestion of the mucosa might have been expected, independent of the poisoning.

An interesting feature in connection with

the first case is that in the brain a region of softening was noticed in each hemisphere, almost symmetrical, and situated in the region of the internal capsule. It is very unusual to find lesions of this kind bilateral, and still more so to find them situated in almost the same region on each side. In this case they go to show the existence of an old standing brain disease. This is a very important discovery from a medico-legal point of view. In the eyes of the law, willful suicide is a crime, but suicide while insane does not constitute a crime. This has important bearing socially, and also has certain religious relations which makes it very important to determine, if possible, whether suicide occurs in an insane person or not. In this case an autopsy was ordered for the special purpose of determining whether insanity could be established or not, and there was no doubt that a man with this condition of brain would be certainly one that would be extremely liable to suffer from mental weakness. We know that where there is a tendency to softening of the brain, it is customary for patients to show more or less an unsound condition of mind, and in this case the history of the man's life during the last few years seemed to point to some cerebral trouble.

Dr. W. F. HAMILTON related the clinical history. The first case which came to the hospital was that in which a small quantity of the poison was used, half an ounce being the amount stated to have been taken. The man said that he had taken the poison at about 3 p.m., he walked home about 5 p.m., and was first noticed by his wife and daughter to be ill. To their enquiries as to the cause of his illness he admitted having taken poison, and a doctor was at once called, who administered emetics and antidotes, and succeeded in having ejected some Paris green and a considerable quantity of blood. At about 7 p.m. he, Dr. Hamilton, was called in, when he found the patient in a condition of collapse, his pulse being very weak, etc. Thirty grains of zinc sulph. with large quantities of warm water were given, and then washed out the stomach with the stomach tube. At about half-past nine he was sufficiently revived to be conveyed to the hospital in the ambulance. On his arrival there, another very efficacious emetic was administered, namely, a teaspoonful of mustard with a large quantity of warm water, which was followed by copious emesis, in which more Paris green was noticed. At 12 p.m. he appeared to be a little easier; at 7 a.m. he complained of intense pain in the abdomen; his pulse was 120, his respiration 30. Bismuth sublimite gr. xxx. with $\frac{1}{2}$ gr. opium, as well as hot applications to the abdomen, were given. Little or no relief was experienced from this, and he died about 8 a.m., judging

from the general symptoms, of cardiac failure.

The second case was another alcoholic. On the morning of the 20th he took three ounces of Paris green. Immediately upon taking it he started for the hospital, and rushing into the office told what he had done. He was already being purged from its effects. About half an ounce of dialyzed iron was given to him immediately, as well as some zinc sulphate, until he vomited freely. He was then transferred to the ward, and doses of zinc sulph. 30 grains were repeated until in all about 180 grains had been taken; no dose was administered until the previous one had produced free vomiting. At the end of each act of emesis he ejected large quantities of an intensely green substance. In addition to the emetics we administered both dialyzed and oxide of iron. At 3 o'clock that afternoon he passed by the bowel some green substance which was considered to be Paris green. On the 21st he seemed considerably better. On the 22nd the temperature went up to 100°, the heart became weaker, and he became very restless. Through the latter part of his life he was constantly retching. Later he developed an intense congestion of the fauces, which interfered with swallowing. He died at 10 a.m. on the 25th, or about five days after his admission.

Report of the Committee appointed to draw up Rules for the Prevention of the Spread of Tuberculosis.—Dr. ADAMI read the report.

Dr. A. D. BLACKADER moved that the report be adopted and printed for circulation.

Dr. HINGSTON thought that the practical suggestions in the middle of the paper were admirable, but there is at the very outset laid down a principle which may not be universally adopted, and which, for the public, is certainly not necessary. It is that in every case of tuberculosis the tubercle must have been obtained from some pre-existing case where tubercle was present, and in that way alone. This question is a very large one, and as yet a very debatable one, and a great deal may and has been said to modify that view. What, for instance, becomes of those experiments of Cruveilhier, with which you are all no doubt familiar? In the healthy rabbit taken from the field he induced tuberculosis, and caused its disappearance at pleasure. He caught them, confined them in a dark, damp place, and tubercles were developed. This he proved by killing several of them one after another, and finding them in different stages of phthisis. Others, again, after they had shown symptoms of the disease, he liberated, and after they had been at liberty for some time he recaptured them, and examination showed that one after another the tubercles were being eliminated. Now, if tubercle is always due to the existence of tubercle bacilli in others, where did the

healthy rabbits get the bacilli? Or were the bacilli responsible for the mischief in the imprisoned rabbits? That is impossible to say, as in the days of Cruveilhier the bacillus was not recognized as the cause of tubercle, and even at the present day it is not universally recognized as the cause, while some think it the result.

In joint affections, and of these he spoke with more confidence, we commonly find the healthy child of healthy parents afflicted. On enquiring as to the previous health of the patient, we frequently get the answer: "Yes, the healthiest of my children." Then there is a history of an injury some time previously; the child, in the act of running or climbing, fell and injured the knee, the hip, or the sacro-iliac synchondrosis perhaps, as the case may be. An inflammation follows in the injured joint, and this inflammation is said to be due to the bacillus, rather than to the clearly recognized fall or injury! Where does this healthy child get the bacilli from? It is true that in the course of time tubercles may develop; but have we the right to say that they do so as the result of the child being brought in contact with the tubercular disease rather than as a result of perverted nutrition? From time immemorial, inflammatory affections of this kind were treated, and generally without benefit, as strumous; it is only since they came to be recognized as inflammatory and the result of traumatism that treatment has become successful. This is one of America's great contributions to surgery.

Moreover, is it as yet quite settled whether the bacilli develop themselves in the course of the disease, or whether they already exist in the system, and manifest themselves only in the injured parts? In joint affections it is certainly not generally admitted that the bacilli are the cause. Cases sometimes occur where the origin of the disease is supposed to be due to some depression of the vital energies of the part, consequent on over-work or injury, inducing a condition where we should look rather for the spores of inflammation than for the bacilli of tubercle. Even now the latter are by some supposed to contain the former.

He fully endorsed all the other points of the instructions to the public: those relating to ventilation, cleanliness, etc., but thought we should stop there, and not say needlessly that which we will often find difficult to substantiate clinically, and which is unnecessary in a set of practical instructions intended for the public.

Dr. ADAMI, in reply to Dr. Hingston, said that this subject is an enormous one, and one that at this late hour of the evening it will be impossible to go into in detail. While he could not now enter into all the evidence showing that tubercle is always obtained, directly or indirectly, from pre-existing tubercle, this,

however, he would say, that in every case of typical tuberculosis, if one takes a piece of the diseased tissue, be it lung or joint, and inoculate it into a guinea-pig, he will have set up a typical tubercular inflammation in which bacilli shall be found. In regard to the experiments of Cruveilhier, they are on a par with those kindred investigations where it was shown, or supposed to be shown, that tubercles could be produced by the injection of particles of dust, or inoculating with bits of paper, string, etc., and of all these only the one thing need be said, viz., that they were made before the discovery of the bacillus, before the bacteriological method had come into use in such investigations, and as such they are imperfect and, he thought, must go by the board. In fact, it is highly probable that the inflammation which these men set up was not true tubercular inflammation at all, and therein lay their mistake.

In laying down the principle alluded to we are acting in accordance with the views held by the leading minds of France, of Germany, of England, and he did not think there was in England to-day a single man of scientific note who disbelieves in the bacillary origin of tuberculosis, and further still, we are acting in accordance with the views held by the majority of this Society.

As a reason why every case of tuberculosis must be derived from some previous case of the disease, he might say that the more one examines the habits of life of the tubercle bacillus, the more certain one becomes that they will not grow at a temperature but three or four degrees below the blood heat, even if they be cultivated upon specially prepared broth. Now, the temperature of an ordinary room is always considerably below that point, and consequently bacilli could not propagate or manage to survive beyond a certain time in such a medium, and so we may infer that wherever a case is found it must have originated from a preceding case. In fact, Dr. McEachran pointed out that the disease was not confined to man, but that it existed and was prevalent amongst animals. It is one of the four great scourges of the bovine race. In joint diseases, therefore, we must not be content with looking for previous disease in other members of the family, but we must also investigate the meat supply as well as the milk of these people.

Dr. GIRDWOOD said that supposing the person does not contract the disease from some preceding case, man or animal, how, then, does the tubercle bacillus become developed, unless by spontaneous generation, which at the present day cannot be admitted.

DISTRICT OF ST. FRANCIS MEDICAL ASSOCIATION.

The Association held its regular fall meeting on Oct. 17th, at the Continental Hotel, Sherbrooke, P.Q.

The meeting opened at 2.30 p.m. The President, F. Austin, M.D., in the chair.

The following gentlemen were present: R. A. D. King, Compton; Thos. LaRue, Coaticooke; G. A. Coderre, Megantic; R. H. Phillimore, Cookshire; G. A. Bowen, Magog; G. W. Powers, Waterville; C. J. Edgar, North Hatley; F. J. Austin, J. D. A. McDonald, F. Paré, I. Frégeau, W. S. Smith, J. A. M. Elie, J. F. Rioux and J. O. Camirand, Sherbrooke.

On motion to that effect, R. H. Phillimore, M.D., and Alex. Dewar, M.D., both of Cookshire, were elected members of this Association.

It was moved by Dr. Austin, seconded by Drs. Paré and King, and resolved: "that this Association, through its Secretary, tender Dr. Meagher, of Windsor Mills, their most sincere and heartfelt sympathy in the great affliction which an all-wise Providence has seen fit to visit upon him by the death of his wife on the 15th inst."

Dr. Edgar moved, seconded by Dr. Smith, that part of the funds of this Society be used for the founding of a pathological department in connection with the Society, to which all members will be expected to contribute material, and to have access thereto when so desired.

The President then gave the annual address, the following being a few points touched upon:

"Since our first preliminary meeting on the 14th Sept., 1890, we have had 6 regular meetings, the first two of these, however, being taken up with framing a constitution, by-laws and a tariff. At the four last meetings, no less than 13 papers were read, besides reports of unusual cases met with in practice. Many of these papers were of great interest, and showed marks of much study and thought in their preparation.

"Our total membership is now 43, and as there are about 70 or 75 members of the profession in this district, there remain a good many stray sheep to bring into the fold.

"From our Treasurer's report, it appears there is deposited to the credit of this Association a sum considerably over \$100, and it is a question what should be done with this money. It has been suggested by some that it be invested in books to form the nucleus of a library; by others, that it should be used to pay for surgical instruments not usually kept by those in general practice, but which might at any time be required for special cases. I am inclined to the latter idea.

"I am quite convinced that these meetings have been of much benefit to those members

who have been able to attend, not only in a professional point of view, but also because they have afforded an opportunity which many of us otherwise would not have had of meeting together, making each other's acquaintance and spending a few hours in social intercourse, which in my opinion is one of the most important objects of these meetings.

"We have much to be thankful for in that death has not visited any of our members during the past year, and that, as far as I know, we have escaped any serious illness or accident, though it is with much regret I hear our esteemed friend Dr. Meagher, of Windsor Mills, has to mourn the loss of his wife, her death having taken place only last Sunday.

"It is with much pleasure I am enabled to say our respected first President, Dr. E. D. Worthington, is still among us, though unable to continue his useful and active career in the profession."

Dr. J. O. Camirand then read a paper on "Fractures of the Patella," in which he described the various modes of treatment and apparatus used in such cases, as well as those used by himself in the cases which came under his care. This was followed by a discussion, in which Drs. Austin, King, Powers and LaRue took an active part.

Dr. G. A. Bowen, of Magog, followed with an extremely interesting and instructive essay on "Hysteria," the Proteus of the medical faculty and the nightmare of all practitioners. Remarks on this subject were made by Drs. Paré, Austin, Powers, Edgar, McDonald and Camirand.

"Chronic Constipation" was the subject chosen by Dr. Powers, of Waterville. The Dr. treated this subject in a highly useful and practical way, affording new and pertinent ideas as to the treatment of this troublesome ailment.

The following gentlemen will read papers at the next meeting:—Dr. J. D. A. McDonald, "Infantile Diarrhoea;" Dr. R. A. D. King, "Obstruction of the Bowels;" Dr. F. Paré, "Cancer of the Stomach;" Dr. R. M. Canfield, "Diphtheria."

The election of officers for the ensuing year was then proceeded with, and resulted as follows:—

President, Dr. F. Paré, Sherbrooke, P.Q.; 1st Vice-President, R. A. D. King, Compton; 2nd Vice-President, C. J. Edgar, North Hatley; Secy-Treas., J. O. Camirand, Sherbrooke; Assistant, J. D. A. McDonald, Sherbrooke. Council—Thos. LaRue, Coaticooke; G. W. Powers, Waterville; J. F. Rioux, Sherbrooke.

On motion by Dr. LaRue, seconded by Dr. Austin, it was resolved that the next meeting of this Association be held at Coaticooke, P.Q., subject to notice from the Secretary, and the meeting then adjourned.

J. O. CAMIRAND, M.D., Secy-Treas.

THE CANADA MEDICAL RECORD.

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London.**F. WAYLAND CAMPBELL, M.A., M.D., L.R.C.P.,** London**ASSISTANT EDITOR****ROLLO CAMPBELL, C.M., M.D.**

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MONTREAL, FEBRUARY, 1894.**THE COLD BATH TREATMENT OF
FEBRILE DISORDERS.**

During the last few years, Brand's method of treating fevers by the use of the cold bath has made very rapid progress, being now adopted in many hospitals by the most progressive physicians in the treatment of typhoid fever. The death rate seems, without doubt, to have been considerably reduced thereby. Our attention has been called, however, to the remarkable effects of the cold water treatment of fevers generally, by the perusal of an excellent paper by Dr. T. K. Holmes of Chatham, Ont., read before the last meeting of the Ontario Medical Association, in which he refers to the experiments of **Lauder Brunton**, made many years ago, which show that the heart of the turtle or frog, when removed from the body, will have its beat quickened or slowed by exposure alternately to heat and cold.

These observations indicate the stimulating effect of heat on the cardiac sympathetic. Dr. Holmes infers from this that blood cooled by the cold bath inhibits the heart and the respiration through its action on the vagus. Dr. Holmes has applied this treatment in a new class of cases, namely, those in which convulsions are accompanied by high temperature. The results were most satisfactory, so that he has come to regard the cold bath as an absolute specific for convulsions coming on during a febrile attack.

Our own experience very fully substantiates the high place which Dr. Holmes gives to the

cold water treatment of fevers, although in private practice the objection of the friends of the patient to immersing them in a cold bath are almost insurmountable. We have, however, obtained really good results with cold water administered in other ways. To begin with, the patient is fed entirely on iced milk, both for the reason that they will take a much larger quantity of this nourishment when cold than they would if hot; 2nd. the raising of two quarts or more of milk at a temperature of 32° up to a temperature of 103° causes the abstraction of a considerable quantity of heat; 3rd, it may be the presence of iced milk in the stomach in close proximity to the heart may have had the remarkable inhibitory influence to which Dr. Holmes refers in connection with the use of the cold bath. Besides this, we took care to have a plentiful supply of ice water or broken ice constantly beside the patient's bed, so that he could help himself as often as he wished. The drinking of ice water or the sucking of ice in turn causes intense thirst, and this thirst itself is made use of to induce the patient to drink still larger quantities of ice water.

Besides these means of keeping down the temperature, pulse and respiration, it has been our custom for the last 20 years to have the patient sponged 2 or 3 times a day with a weak mixture of spirits and water, the moisture being allowed to evaporate instead of being dried off. There are few patients who will not claim that this proceeding is exceedingly grateful to them. By these means, therefore, the practitioner can keep down the temperature and pulse rate even in private practice, where it would be impossible to sufficiently overcome the prejudices of the friends and relatives of the patient to permit of the employment of Brand's cold bath treatment. The beneficial effects of the taking in of large quantities of cold water in addition to the iced milk are immediately seen in the disappearance of the high color from the urine and also of the dirotic characteristic of the pulse, which is due, of course, to insufficient filling or tension of the arteries. Arterial tension, we need hardly say, is a prime factor in the nourishment of the heart, which is only fed by the coronary arteries, which in turn are but poorly filled, when the pulse is dirotic and the arterial tension low.

BOOK NOTICES.

DUANE'S STUDENTS' DICTIONARY OF MEDICINE.

The Students' Dictionary of Medicine and the Allied Sciences. Comprising the pronunciation, derivation and full explanation of Medical Terms, together with much collateral descriptive matter, numerous tables, etc. By Alexander Duane, M.D., Assistant Surgeon to the New York Ophthalmic and Aural Institute; Reviser of Medical terms for Webster's International Dictionary. In one square octavo volume of 658 pages; cloth, \$4.25; half leather, \$4.50; full sheep, \$5.00. Philadelphia, Lea Brothers & Co., 1893.

This work has received years of the most painstaking labor of a gentleman abundantly qualified by natural gifts and special training for the difficult task just completed. The volume is one of high merit, and we anticipate for it rapid recognition as the standard medical dictionary for students.

Dr. Duane's experience as a medical lexicographer and his accurate scholarship are sufficiently attested by his position as Reviser of Medical Terms for Webster's International Dictionary. In the present work he has undertaken to provide medical students with full information concerning every word they will meet in acquiring their professional education. The vocabulary is exceedingly liberal, and its fullness is paralleled by the treatment accorded to each word. The definitions are of the "explanatory" style, including not only a statement of meaning, but likewise much descriptive matter under headings which would be inadequately represented by a definition however full. Thus, under Diseases are given their causation, symptoms and treatment; under important Organs, an outline of their structure and functions; under each Drug, its actions, uses and preparations, the information being arranged in logical order, so as to give a rational and connected idea of the subject. Extensive tables of Bacteria, Muscles, Arteries, Veins, Nerves, etc., are included. Each word is followed by its correct pronunciation (a new feature in works of this class), given by means of a simple and obvious phonetic spelling. Derivation, an unexcelled aid to remembrance of meanings, is likewise fully and clearly stated, Greek letters being replaced with those of the English alphabet, for the convenience of those unfamiliar with Greek. The type has been carefully selected for legibility, and each page contains an extraordinary amount of matter. Duane's Medical Dictionary is executed on a plan embodying in a high degree every qualification of value to students, and we may therefore confidently predict that it will become the standard and favorite work of its class.

PAMPHLETS.

THE PREVENTION AND MANAGEMENT OF PELVIC INFLAMMATION IN PUERPERAL WOMEN, by Horace Tracy Hanks, M.D., Professor of Diseases of Women, New York Post-Graduate School and Hospital; Surgeon to the Women's Hospital in the State of New York; late President New-York Obstetrical Society; late Vice-President New-York Academy of Medicine; and Member American and British Gynæcological Societies, etc. Reprint from American Medico-Surgical Bulletin, May, 1893.

MECHANICAL AIDS IN THE TREATMENT OF CHRONIC FORMS OF DISEASE, by Geo. H. Taylor, M.D., author of "Health by Exercise," "Health for Women," "Pelvic and Hernial Therapeutics," "Manual Massage," etc. Consulting Physician to The Improved Movement Cure Institute, 71 East 59th Street, New York. Copyright, 1893, by the Improved Movement Cure Institute, New York, George W. Rodgers, Publisher. 1893.

REPORT ON NASAL SURGERY, WITH ILLUSTRATED CASES. By M. F. Coomes, A.M., M.D. Professor of Physiology, Ophthalmology, Rhinology and Otology in the Kentucky School of Medicine, Louisville, Ky. Reprinted from the American Practitioner and News. Louisville, John P. Morton & Company, 1893.

EROTOPATHIA (MORBID EROTISM). Read before Section on Nervous and Mental Diseases, Pan-American Medical Congress, at Washington, D.C., September 8, 1893. By C. H. Hughes, M.D., Executive President of the Section, and President of the Faculty, and Professor of Neurology, Psychiatry and Electrotherapy, Barnes Medical College. Reprint from the Alienist and Neurologist. St. Louis, October, 1893.

COUNTER-DRAINAGE AFTER CÆLIOTOMY. By Horace Tracy Hanks, M.D., New York. Reprinted from the Post-Graduate, No. 4, 1893.

THE TREATMENT OF NASAL DUCT OBSTRUCTION. Read in the section on Ophthalmology at the Forty-Fourth Annual Meeting of the American Medical Association, By Casey A. Wood, C.M., M.D., Professor of Ophthalmology in the Post-Graduate Medical School, Chicago; Oculist and Aurist to Cook County Hospital; Oculist to the Emergency Hospital and Alexian Bros. Hospital. Reprinted from the Journal of the American Medical Association, October 28, 1893. Chicago: Published at the office of the Association, 1893.

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Original Communications.

FELL METHOD—FORCED RESPIRATION.

By GEO. E. FELL, M.D., F.R.M.S.,
Ex-President American Microscopical Society, etc., Buffalo, N.Y.

(Continued.)

CASE XLIV.—DR. FELL.

While the description of an instrument may appear somewhat detailed, and indicate that the method in operation is somewhat difficult, such, in this instance, is not the case. All there is to forced respiration is the forcing of air under *suitable pressure and control* with *proper periodic intermission*, into the lungs. It can only be properly done with *suitable apparatus*. The simplicity of the method should give to the operation its widest range of usefulness; but, to become practically acquainted with it, one must see it and study it before he can understand it. With proper instruction, the members of a *life saving* or a *ship's crew* could be taught to utilize this valuable method of saving human life. I presume before the "conservative" (?) medical profession of America will utilize

this method, thousands of its members must have their attention *specially* called to cases of resuscitation through its employment. After the results obtained, this should not be required.

Another matter I may refer to at this time: I believe all will admit that the greatest credit which it is possible to obtain as the originator of a method of wide range of applicability in saving human life consists in the largeness of the list of lives saved by it, and the just appreciation of its value by your fellow-man. There is no higher aim that we as physicians can conceive, than that of preventing the vital spark from taking leave of the human organism. If this be true, it does appear unjust, unfair and unthankful that credit should be withheld from those who are entitled to it, and that the medical world, in any section, should use these methods without the greatest care in giving to those justly entitled to it the credit due them. In the mercantile world, dollars and cents "count;" in the medical profession, reputation only.

This is the only payment which the profession at present allows those who accomplish results of *value* in fields unexplored. Indirect financial benefit is not honest gain. On this account, therefore, the original labors of physicians should be

guarded with the utmost care in all sections of the globe. The following quotations (with additions) from a paper presented before the last meeting of the New York State Medical Association will explain my reasons for the above remarks :

"Through the kindness of Dr. Thos. H. Manley, of the New York State Medical Association, I am enabled to refer to an article in the Proceedings of the Paris Academy of Medicine, under the date of June 2, 1891, in which Dr. J. V. Laborde, in a discussion on 'Anæsthesia,' regarding the dangers of chloroform narcosis, recommends forced respiration, and has devised a face-mask with which to perform the operation. This face-mask is of metal, with the edges surmounted or faced with rubber, and includes the *nose and mouth*. It is, 'to all intents and purposes,' *similar in detail* to the one I have been using for some years, and with which I have saved a number of lives. Dr. Laborde speaks of his invention as novel, of great future value, declaims on the subject never having been brought up for discussion, etc. The members of the New York State Medical Association, who have been acquainted with my work for the last four years, will agree that our Paris physicians can well afford to look westward to learn that progress is not confined to Continental Europe. It is quite strange, also, that Dr. Laborde has overlooked the statements of Prof. Horatio C. Wood, in his address on 'Anæsthesia,' before the Berlin Congress, 1890, in which he distinctly calls attention to my face-mask, and which I had been using for two years previously.

"I am also astonished by the statement in the Paris Academy Report, that noted French physicians have been using my method by tracheotomy with remarkable success, and without giving any credit for its practical introduction to the world from this side of the Atlantic.

"At the Paris Exposition of 1888, which had a department to illustrate life-saving methods, one of my instruments was exhibited by Mr. George M. Bailey, of Buffalo, N.Y., who, having witnessed the remarkable case of Julius Barre, in which instance I respired twenty-four hours for my patient before he was able to breathe for himself, requested, in the interests of progress, the privilege of taking it abroad. He had

with him reprints of my articles published in the Transactions of the New York State Medical Association, which were distributed among some of the physicians and jurors interested officially in the Exposition. *At that time, through ignorance of the value of my method*, they took no notice of my work as being worthy of note as a life-saving invention. Even the *medical representative of the United States Government at the Paris Exposition* did not see anything of value in it, although *no more remarkable cases are recorded in the annals of medical science than some of the first reported in my memoirs*, which were placed at the command of these gentlemen, but possibly not given the attention they deserved ; but, what is most remarkable, appropriated it, utilized it, and now claim originality for methods which I had previously used and first recommended in practical shape to the medical world."

I would not speak thus pointedly did I not believe these gentlemen cognizant of my work through the publications left at Paris. It may be, however, that they did not see them.

Also, let me refer you to a criticism which was made some time ago by a Dr. Herzog, of Hoboken, in which he called attention to an instrument having been devised for forced respiration, some twenty years ago, which had been donated to the Humane Society of London, England. The apparatus consisted of one or more cylinders so arranged as to force air into the lungs and also exhaust it. It was costly and cumbersome and, undoubtedly, was never used to save human life, or, if it had been, would likely have failed ingloriously.

In justice to the results of my work, I must give my answer to the article in question. I stated that :—"I would not now be surprised if someone should add that Hippocrates had thought of forced respiration, and even devised an apparatus to perform it with. John Hunter did both, and possibly others, but we have no record of any of these noted men having applied their invention to the saving of human life. See Prof. Horatio C. Wood's remarks in his address before the Berlin Congress, in which he says : "But I have not found that either Hunter or Richardson treated by forced artificial respiration an actual case of disease or poisoning." If

these well-known physicians failed where I succeeded, am I to have less the credit?

In all this apparatus a grave defect existed, in my opinion, in that provision was made to exhaust the air from the lungs; this complicates the apparatus, and, furthermore, is not in accord with physiological conditions, as inspiration is a forcible measure, while expiration, being passive and produced by the elasticity of the fibro-elastic tissue of the lungs, does not call for the utilization of mechanical means to produce it. I also believe that an apparatus provided with means for exhausting air from the lungs would prove a very dangerous instrument to place in the hand of the average physician in an emergency case.

However, *no one* will question that Richardson, Hunter, the designer of the apparatus mentioned in Dr. Herzog's letter and several others whom I could cite, have prepared or invented instruments for forced respiration upon human beings.

With all their labor, what did they accomplish? Was a single human life saved by them? Did they demonstrate the *wonderful possibilities* of the method? Let us see. After my first operation with the instrument used in my physiological laboratory, and with which, notwithstanding its defects or adaptation for the purpose, I had succeeded in keeping my patient alive for nearly three hours, until he breathed for himself, I looked up the home and foreign literature on the subject. Nothing was discovered which appeared to controvert the fact, that I was justly entitled to the credit of being the first to *systematically and practically* solve the question of the value of forced respiration in the saving of human life; or that I had demonstrated, as one physician puts it, "that air can be *forced* into the lungs without any damage to them." Whatever has been accomplished, also should be stated, was without *any previous knowledge* of the *failures* in the same field which had ante-dated my efforts.

I can say, with the practical knowledge obtained from operating upon human beings, that the instruments used in the physiological laboratory do not meet the conditions to be successfully overcome in breathing for a human being for any length of time. They may answer in some in-

stances as a make-shift, but the work is carried on at a great disadvantage, and with many chances in favor of producing, instead of averting, a fatal result. They were never intended to be used upon human beings. The instrument with face-mask, originally devised by myself in all its practical details, and with which the results detailed in this paper were accomplished, was founded upon the experience obtained in my first case; and the results of my labor with it so overwhelmingly annihilates any controversy in opposition to its use, that it is needless to do more than present them to the profession. Had similar results or demonstration been accomplished at the hands of others in the past, nothing could have prevented them from receiving the widest publicity in the medical literature of the day; but no record is found which detracts from the practical value and originality of my labors. As a physiologist, I was acquainted with the apparatus used in the physiological laboratory, from the simple bellows with nozzle poked into the trachea of a dog, to the more complicated, constant Sprengle blower with interruptor, which admittedly would be of no use as an emergency instrument.

The apparatus I had used meets all the requirements for forced respiration in man, with or without tracheotomy, and in the *simplest manner*. It covers* *all* the methods which can be utilized in the operation, is adapted to be used out of doors or in a cold atmosphere, but may be modified by an arrangement to provide a constant air supply and automatic inspirator, which would, however, increase the cost, and do away with the emergency feature of the apparatus, as now used.

Dr. Herzog's article, possibly without intent, would naturally lead to the inference that the subject is old, not worth considering; its tenor is not uncertain. The truth is that the work in forced respiration, prior to my own, and running through the past century to a great extent, had simply relegated it to the list of *unjustifiable* procedures. Do we find anything

* I do not question that different mechanical devices might not be successfully used in forced respiration. They would not simplify the operation, and now, since the demonstrations of its value, may spring up as original inventions.

previous based upon *results* recommending us to use forced respiration after all other methods of artificial respiration had failed? On the contrary, we do find in every medical work treating on the subject, the "Ready Method in Asphyxia of Marshall Hall," the highest accepted authority, that we *must avoid the use of bellows* or any forcing instrument.

Now, I propose to talk plainly, as it seems entirely unnecessary at this date to mince words upon this subject. *The practical introduction to the world of the value of forced respiration in the saving of human life, the demonstrations which indicated its great possibilities, must be accredited to an American*, and the work of others in the past had nothing to do with the results obtained by him which were original in conception and in the detail of the method of practical application.

The question simply amounts to the difference between failure and success: will the credit be accorded to those who failed or the one who succeeded? In this Columbian year I might ask, if Christopher Columbus had prepared his ships, but not sailed across the Atlantic, *would he have discovered America?*

What also must be admitted by those who are inclined to accord justice to whom it is due is, that the practice of vivisection in the colleges and laboratories of the land had no relation whatever to the saving of human life, or had it been ever taught in medical institutions, systematically or otherwise, as of any value in saving human life. For over eight years prior to my first operation of forced respiration upon a human being, I had been a practical vivisectionist in the physiological laboratory, and during that time I never heard it even hinted that a human life might be saved by the laboratory methods.

It was in the field of paralysis of the respiratory centres from opium that I began my work with forced respiration, and the demonstrations as to its efficacy, from the first, could not be questioned. Each and every case saved had passed beyond the limit of hope, so far as all known and systematically applied methods of resuscitation were concerned. To be denied the credit which should in all fairness be accorded to the practical originator of a method of such far-reaching importance in the saving of

human life is what I could not and will not quietly submit to. "Honor, gentlemen, to whom honor is due."

Let me correct also another impression coming from high authority: Dr. John O'Dwyer, who advocated intubation, states that there are serious objections to the use of the face-mask and tracheotomy in forced respiration. (See his article, Archives of Pediatrics, May, 1892.)

The majority of cases upon which I have operated have been cases of opium narcosis; cases, it is true, which offer the widest demonstrations of the advantage of the method in its long continued use, and yet it must be borne in mind that the life of the patient is not out of danger until the poison is eliminated from the system.

Now, I am quite sure that neither Dr. O'Dwyer nor any other judicious physician would recommend a method which would prevent the imbibing of fluids, through which means we may most readily aid elimination of the poison. Intubation, which he recommended, would certainly do this in preventing closure of the glottis, and therefore I have not used it; also, it is a fact that one of the difficulties we have to contend with in these cases is the danger of vomited fluids entering the larynx and obstructing respiration. I must contend that in such cases tracheotomy offers more hope for our patient than intubation, as there is no interference with the passage of fluids to the stomach. Experience has shown again that intubation will be seldom needed when the face-mask offers us as good results without any of the difficulties which must be necessarily met with in intubation. The objections Dr. O'Dwyer urged against the face-mask are not in many cases borne out in actual experience; views based upon practical experience must be conceded as of more value than those of a semi-hypothetical nature. Nearly to the present time, so far as can be ascertained, I have probably had more systematic operations of forced respiration *upon man* than all the rest of the physicians of the world combined. What I may say upon this subject is based entirely upon this experience.

Dr. O'Dwyer states that: "In forcing air through the mouth or nose of an insensible patient, the tongue, unless secured, is almost certain to cause obstruction, or th"

vocal chords may be forced together by in-rushing air, and act as a valve as in paralysis of the abductor muscles, because there is no expansion of the glottis as in normal inspiration." This does not generally hold, I can safely state, from the observations I have made and now repeat tersely.

In my eleventh case, young woman, I used the face-mask for four hours; my fifteenth case, female, for seven hours; seventeenth case, female, two hours; case nineteen, old lady, two hours; case twenty-first, female, seven hours; case twenty-second, female, four hours; twenty-fourth case, male, five hours; twenty-fifth case, female, two hours. In all these cases, and many subsequent for the time mentioned, which resulted in the majority of instances in saving the lives of my patients, there was absolutely no interference with the air passing directly to the lungs. Furthermore, the chest would heave and fall in many cases in the most natural manner. That such results could be obtained by the cheap apparatus mentioned in "The Year Book of Treatment," 1891, page 193—Dr. Wood being given the credit as originator—and lauded as the best, consisting of a face-mask, a few feet of rubber tubing, a pair of bellows, and two sizes of intubation tubes (ordinarily not required), I do not believe. With such an apparatus which, it is stated, could be used by "unskilled persons," I am quite certain I would have lost many of my patients. In the cases referred to, if too great pressure was produced, the œsophagus would expand and cause stomach inflation; but by careful inspirations for a time, followed by pressure on the abdomen, it would pass away without inconvenience.

What appears to me may be urged as facts of value in this connection are the following: The passage to the lungs under ordinary conditions of unconsciousness, except, and even sometimes, in swallowing, is always open. The air forced into the lungs does not, as is generally believed, cause a closure of the glottis any more than the deep auto-inspiration of ordinary respiration. Exceptions may be taken to all rules of course.

If forced respiration by my method, use of face-mask, etc., be carefully conducted, the lungs may be as fully inflated

as under deep auto-inspiration, and the respirations kept up for a period of time ranging from one to ten hours, according to size of individual and degree of obesity. Thin, spare patients appear to be better subjects than those of opposite build. In the few cases in which, from continued work with complete paralysis, the tongue has fallen back and occluded the larynx, a ligature has been placed through it and the organ held forward. Usually, extension of the neck will raise the glottis, but cannot always be relied upon; in such cases intubation would be of value. After the face mask has failed in one or two instances, I have saved life by performing tracheotomy, which was called for through the cases being narcotized by opium (*vide* previous remarks).

As to intubation, it may have its place in some cases of forced respiration, but to urge its value over the use of the face-mask when the latter has accomplished so much, is unwarranted.

Dr. J. S. McLain of Washington, D.C., who has supplied himself with an apparatus for forced respiration, propounded the following questions, which, having a practical bearing upon the use of the instrument, might prove of value to others.

First Question:—After padding the face-cup to make it fit the face of the patient, is it necessary to exert considerable pressure thereon when the air is being sent into the lungs, to keep the air from escaping at sides of cup? The amount of pressure will vary in different patients, but not to a great extent if the cup fits the contour of the face snugly, or it is padded with a piece of cloth to do so. I have used the face-cup on men with a moustache or whiskers, and it has worked well. It is a mistaken notion that much pressure of air is required to inflate the lungs in inspiration. The artificial lungs which I have used in demonstrations very nicely illustrate this, and with them the actual pressure used can be readily obtained. The presence of cyanosis is the most important condition which calls for more active or forcible inspiration. In producing it, it should be borne in mind that *too great* pressure will distend the œsophagus and inflate the stomach and intestines. If this should take place, pressure upon the abdomen at intervals will relieve the condition, so as not to

prevent the descent of the diaphragm and interference with inspiration. In the majority of instances I have not found it necessary to hook up the tongue. If it falls backward and prevents the air from passing to the lungs, a coarse ligature may be passed through it, carried out at the side of the face-cup and retained in place with very little trouble. Sometimes, but not always, by raising the larynx or extending the head, the respirations will be facilitated. My experience would lead me to state that forced respiration by the face-mask is more readily applied in the case of lean than in corpulent individuals, that the difficulties noted above are hardly to be experienced in the former.

A case in point was that of Mrs. N——, who had taken eleven grains of morphine; artificial respiration, Sylvester method, was of no avail; four hours of respiration Fell method placed the lady out of danger. In this instance the slightest movement of the air control valve would cause the chest to heave, when the respiratory centres were almost completely paralyzed; the marked cyanosis was quickly overcome, and the most complete control of the respirations existed.

Second Question:—Is it necessary, when using the face-cup, to pry the mouth open and raise the tongue, or will the air enter in sufficient quantity through the nostrils, supposing the mouth to be closed? In the majority of cases, air will enter through the nostrils in sufficient quantity to supply the respiratory needs. If the base of the tongue occludes the glottis, a ligature passed through the tongue, as stated, will aid the inspirations. This will be seldom required.

The object of presenting this paper to the members of this Congress is that through the unquestioned results obtained by the methods first systematically and practically recommended, and by giving a clear record of the experiences which brought them about, they may be readily taken up and utilized for the benefit of the profession and humanity.

Dr. Pepper, the worthy president of this body, gave his opinion, to the effect that the reading of papers, and giving demonstrations before medical bodies, would do but little towards introducing a new practice, so that it would be generally utilized by

the profession. He urged that I would succeed better by placing into the hands of the well-known clinicians of the country a few instruments at cost price, and await the results of their use. This I will endeavor to do, as there is no evidence that instrument manufacturers will do anything with the apparatus until the clinicians generally have demonstrated that it is a necessity and a valuable addition to our armamentarium. More than this, medical opinion must be moulded so that it will be considered hazardous to attempt to save life without proper appliances being provided beforehand. A physician of Syracuse, N.Y., telephoned me to send him an instrument, that he had a lady patient in danger of dying from an over-dose of opium or morphia. I received the word two or three hours after it was sent, and forwarded by express the only instrument I had at my disposal, offering it to the party at less than the actual money outlay I had incurred in preparing it. Next day the instrument came back, with the statement that, while the physician was at the depot obtaining it, his patient died; that now, knowing where he could procure one, he would wait until he had another patient before procuring it. If the second patient comes around, he will undoubtedly have another death certificate to fill out.

The following letter, in answer to an enquiry of Dr. J. Frank, of Chicago, who is supplied with an apparatus, may be of practical value to anyone desiring to use the method: "Suppose a case of asphyxia from any cause, as opium narcosis, drowning, inhalation of gas, a case of shock from any cause in which the respiratory centres are disturbed or in which the respirations are shallow from loss of vital energy, and in which the Sylvester or any other method or artificial respiration has failed or is of no value. Use the apparatus as follows, with the parts in the following relations to each other: Face mask or cup, rubber tube connecting it with air valve, air valve, rubber tube connecting air valve with bellows.

With your patient on a table, bed or floor, as the case may be, press face-cup over the nose and mouth, and have bellows worked by an attendant at the rate of from 120 to 150 times per minute for an adult, and less for infant or youth. For

each three movements of bellows, press down piston of air valve, which permits the air to pass to the lungs, bulging out the cheeks, and produces an inspiration. Then release piston of air valve for three movements of bellows, letting the air pass out of lungs and producing the expiration — keep it up. If cyanosis does not pass away, make the inspiration a little longer. With the air valve you can absolutely control the outward or inward movement of the air, and by watching, if attempts at respiration should be made by the patient, you can materially assist them and change instantly from one to the other. The puffing out of the cheeks, heaving of the chest and vibration of the vocal chords (slight snoring sounds) are all indicators of value in the progress of the work. This method of forced respiration in such a case is doing more than to keep up the life of the patient where all the old methods of Sylvester, Marshall Hall and other methods of artificial respiration would fail. Through the extra quantity of oxygen supplied to the blood it overcomes to a degree the effect of the narcotic, and thus enhances the chances of recovery of the patient. In addition, however, all methods calculated to tone up and invigorate the heart muscle and system generally, with those calculated to eliminate the poison circulating in the system, must be used. Don't fail to try forced respiration even when the prospects for successful resuscitation seems useless, as I have many instances in which life has been saved when the indications gave little cause for hope.

Now, gentlemen and ladies, I was in hopes that my experience at the Pan American Medical Congress might prove different from that with other medical bodies with which I have discussed this subject, but I have found it the same. No special recognition which has resulted in calling the method into general use has been taken. If not when thirty human lives have been saved by a procedure not heretofore intelligently utilized, will it when sixty or a hundred or more have been saved? I have given to the world a simple, practical and thoroughly valuable method of saving life, which, had it been utilized in the last four years, after ample time had elapsed to demonstrate beyond doubt its value, not one but from two to three thou-

sand lives would have been saved which have been sacrificed to an outrageous conservatism which has no right to prevail among intelligent beings at the present period. The reasonable recognition of a procedure which has accomplished so much would interest thousands who would not give it a thought without it, and do much toward bringing into general use a life-saving method, well known, but lying dormant, listless, inadvertent. I ask you in all earnestness, if this great American body can do better than give this subject the consideration it deserves, or let the opportunity pass to somebody of equal or greater magnitude to do it? The results of my work will continue to be added to. I hope to live to see them figured in the thousands. In the ordinary course of events it must come. I appeal to our American foreigners here to have it utilized at their homes, and can assure them that it will do what has not been accomplished before, and exceed their most sanguine anticipations in the results which are ordinarily obtained.

72 Niagara St., Buffalo, N.Y.

Society Proceedings.

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, May 12th, 1893.

JAMES STEWART, M.D., PRESIDENT, IN THE CHAIR.

Large Scrotal Hernia.—Dr. ARMSTRONG brought before the Society a man suffering from an enormous hernia. It had been gradually increasing for the last twenty-four years; a truss had never been worn. The sac seemed to contain the greater part of the small intestines, and the ring was large enough to admit the fingers to the knuckles. Dr. Armstrong intended to transplant the cord and close the opening.

Dr. SHEPHERD referred to a similar case upon whom he had operated several years ago. The sac contained all the abdominal contents, except the stomach and rectum. The testicle, which was cystic, was removed, and the canal completely closed. There has been no return.

Macroglossia.—Dr. SHEPHERD showed an infant of six months suffering from an extreme

degree of macroglossia. The tongue projected about two inches from the mouth, and great difficulty was experienced in feeding the infant. He proposed to remove the tongue with the écraseur.

Poisoning by Sulphate of Copper.—Dr. WYATT JOHNSTON exhibited the stomach of a man, aged 28, who had committed suicide by drinking nearly a quart of a saturated solution of sulphate of copper from a battery jar in the electric works, where he was employed as a night watchman. Death occurred in an hour and a half. The stomach and intestines had externally a leaden-blue color, and contained a large amount of pale grayish-green flocculent fluid. The mucosa had the appearance of having been tanned, and was stained a deep green color. Chemically, the contents of the stomach were found to consist of basic or sub-sulphate of copper. Heart muscle and liver parenchyma looked opaque and grayish. No examination for copper was made of these organs.

Dr. W. F. HAMILTON said that the patient had been admitted to the General Hospital shortly before death. Large quantities of warm water and mustard failed to produce emesis. He seemed to suffer from extreme pain and difficulty of respiration, owing to a quantity of mucus in the throat. Extremities were cyanotic; superficial capillaries were markedly dilated. There were some mucous and watery stools.

Dr. MILLS asked if there was any evidence along the course of the vessels and lacteals to indicate whether the salt had been absorbed into the blood.

Dr. JOHNSTON replied that there were no signs to indicate that absorption had taken place; no naked-eye changes in the blood.

Localized Tuberculosis of Ascending Frontal Convolution.—*Tuberculosis of one Suprarenal.*—Dr. ADAMI exhibited the drawing of a brain recently removed by him, presenting a peculiarly rare localized tubercular lesion, affecting the centres for the movements of the upper limb and neck of the left side.

The patient, a woman of 28, phthisical and a morphine maniac, a patient of Dr. Stewart at the General Hospital, had, for two days before death, suffered from repeated attacks of an epileptic nature, in which there were convulsive movements of the left upper extremity and the neck, so that the head became pulled down to the left, and the face turned partly to that side. These movements were executed with great rapidity, as many as 145 contractions of the extremity being recorded per minute.

At the autopsy, there was found old phthisis of both apices, and, extending from there, a condition of acute tubercular broncho-pneumonia, miliary tubercles of relatively large

size being scattered all over both lungs. Both the kidneys and the liver presented similar tubercles, while the medullary substance of the right suprarenal contained caseous tubercular foci of large size. The left suprarenal had a gray softened medulla, but was not tubercular.

A condition of great interest was exhibited in this brain. Careful examination and section revealed no tubercular affection save at one spot—an area a little over half an inch in diameter, situated upon the right ascending frontal convolution, at either apposed side of a fold forwards in that convolution, at the level of the sulcus which separates the superior from the middle frontal region of the brain. Here miliary tubercles surrounded the surface vessels, and the tubercular process extended along the sheaths of the branches given off from these, and formed small wedge-like masses, passing through the gray to the outer service of the white matter. Dr. Adami pointed out that a tubercular lesion of such small dimensions affecting so distinctly one group of associated movements was almost, if not quite unique. He called attention to the fact that this case supports Ferrier's conclusion, reached by experimental research, that the area for the movements of the neck passes backward to the ascending frontal, and overlies or intermingles with the areas for movements of the upper extremity.

Recto-ovarian Fistula.—The same case presented another rarely recorded condition. Upon removal of the pelvic organs *en masse*, it was found that both ovaries were situated low down in the cavity, and were there bound to the vaginal end of the uterus by firm old inflammatory adhesions. They were fibroid and contracted. The Fallopian tubes curved downward to them, and did not present such extensive evidence of inflammatory disturbance. It is to be noted that the left tube was not at its extremity in close attachment to the ovary.

Upon attempting to cut away the left ovary, a fistulous track, containing foul-smelling contents, was opened, and upon passing a sound into this, it emerged into the rectum at a point about $3\frac{1}{2}$ inches above the anal orifice. The ovary lay curved over the blind end of this fistula, which was $1\frac{1}{2}$ inches in length. There had been so much inflammatory change all around the fistula, that it was not possible to recognize microscopically anything but firm, fibrous tissue in this region; however, macroscopically, the rather thin upper wall of the fistula, seen from above, was in direct connection with, and indistinguishable from, the rest of the ovary, while, clinically, there was the history of acute ovarian disturbance several years previously. Hence, it may safely be inferred that this was a true recto-ovarian fistula.

Not a few cases of tubo-ovarian abscess

bursting into the rectum are on record, but here the tube was not implicated, and Dr. Adami held that the fistula could only be explained as the consequence of an acute suppurating oöphoritis or perioöphoritis with rupture into the rectum. The patient had complained of no recent ovarian or rectal trouble; the fistula, as its walls showed, must have been of long standing.

Dr. WILLIAM GARDNER had never met with a condition of recto-ovarian fistula as described. Ovarian abscess without involvement of the tube is extremely rare.

Dr. STEWART said that the case was unique as a demonstration of the location of the motor areas.

White Sarcoma of the Retina.—Dr. BULIER exhibited the specimen and gave the history of the case. The patient, a woman, aged 49, had a subacute glaucoma, of some standing, in the right eye. A year and a half ago she became suddenly blind. The other eye was absolutely healthy, so he had come to the conclusion that this was not a case of ordinary glaucoma, but that the blindness was due to some cause antecedent to the glaucoma. The lens had become quite opaque, thus precluding ophthalmoscopic examination, and making the diagnosis difficult. He, however, counselled enucleation, which was done. On making an equatorial section, a round growth was seen on the fundus, which proved to be a white sarcoma, a condition of great rarity. The rest of the eye was in a fairly healthy condition; the detachment of the retina had not become complete.

Thoracic Empyæma.—Dr. ALLAN read a paper on this subject, dealing with the surgical treatment.

Dr. SHEPHERD thought that ordinary cases following pneumonia got well after aspiration. But in cases where incision into thorax, with removal of one or more ribs, is performed, the operation gives great satisfaction. He never washes out the cavity, except when the pus is fetid, as he considers it unnecessary to introduce foreign matter.

Dr. McGANNON said that there was a great difference of opinion about washing out the cavity. Some say that the procedure causes shock, but he thought shock might be due to hæmorrhage. A weak solution of peroxide of hydrogen could never do harm, and might be of great service.

Dr. STEWART had recently seen three cases of pneumonic empyæma, and none had been successfully treated by aspiration.

Stated Meeting, May 26th, 1893.

DR. JAMES BELL, 2ND VICE-PRESIDENT, IN THE CHAIR.

Dr. ARTHUR BEERS was elected a member.

Exophthalmic Goitre.—Dr. J. B. McCON-

NELL presented before the Society the patient, a woman 45 years of age, married 25 years, 4 children, the youngest being 5 years. The trouble began in the summer of '91, when she began to suffer from a spasmodic cough, which seemed to arise in the throat, and was associated with a great deal of palpitation. During the winter following, she got rid of the cough, but the palpitation grew worse. During the summer of '92 the palpitation was so bad that she could scarcely lie down. She noticed the swelling of the thyroids first about Christmas, '92, and they have grown gradually larger ever since. In the spring of '92 she first observed some brown pigment spots on different parts of her body; since then they have appeared on the hands, the shoulders, the inner sides of the thighs, and somewhat less marked on other parts of her body. Associated with these pigment spot are patches of leucoderma. The exophthalmos is not as yet very well marked; it is becoming more so, however, seeming to be following the other two cardinal symptoms. She has also suffered from marked tremor, which has been a little better of late, several days' rest seemingly having rendered it quieter. Her pulse ranges from 90 to 120, and is very irregular.

Examination shows the heart to be considerably enlarged; the apex beat is considerably to the left of the normal point.

It is a very typical case of Graves' disease. The pigmentation, however, does not appear to be a very common complication. In Pepper's system of medicine it is not even mentioned; Osler, however, speaks of it as one of the complications of this disease.

There is no anæmia, although she is emaciated and somewhat pale; the corpuscles number 5,200,000 to the cubic millimetre.

Dr. ADAMI remarked that pigmentation was very common in the cases of this disease he had seen, in a country where Graves' disease appeared to be particularly common, Lancashire. It was looked on there as the fourth cardinal symptom. Pigmentation is interesting as showing the nervous nature of exophthalmic goitre, and brings it into relation with more than one disease in which there is some affection of the sympathetic system. Addison's disease is another of these.

Dr. LAPHORN SMITH extolled the use of the galvanic current in the treatment of the disease, comparing it to quinine in malaria, and mercury in syphilis. He cautioned moderation in the turning off or on of the current, remarking that the sympathetic nature of the trouble is shown by the tendency of the patient to faint or turn pale under even the slight shock thereby incurred. A single sitting often reduces the size of the tumor quarter of an inch. A lady afflicted with this trouble, and in whom the tumor is so large as to obstruct breathing,

had been accustomed to come to him yearly for several years, just to have it reduced, it growing again in the interim. The strength of the current used varies from 10 to 15, and rarely up to 20, milliamperes. No puncture was ever made, simply an electrode large enough to cover the surface, and, to effect this, it is better to make it concave. Clay or absorbent cotton answer very well for its manufacture.

Dr. KIRKPATRICK related the history of a case where the galvanic current had been used with results corresponding to those of Dr. Smith. The patient usually stood 10 milliamperes, commencing with 5, and gradually increasing. In the *Medical News*, a few months ago, a case was mentioned where the Faradic current had been used with equally gratifying results. On the other hand, a case occurred in the General Hospital some time ago, where the constant current had been used without any result. Probably, after all, it is only in a certain number of cases where it is of use.

Dr. McCONNELL asked on what principle galvanism is used in this disease. The enlargement of the thyroid is a secondary phenomenon. It seems to begin in some affection of the sympathetic, a vaso-motor paralysis localized to a certain extent; in this way the heart is primarily affected. Goitre and other symptoms seem to be secondary and not essential, from a causative point of view. Have they applied the current with a view to reduce the enlargement, or has the sympathetic been galvanized?

Dr. L. SMITH thought galvanism acts as a powerful tonic to the sympathetic. He believed that the beginning of the disease is a paralysis of the vaso-motor nerves in the thyroid, resulting in a hyperæmia of that gland. Galvanism acts by renewing the tone to these vessels, and the fainting, etc., which are observed to follow a too sudden application of the current, are due to the too rapid tightening of the sympathetic in the brain, the blood being thus temporarily cut off.

Cases of Cystic Diseases of the Ovaries.—

Dr. ADAMI had recently received for examination a very interesting series of cases of disease of the Fallopian tubes and ovaries, and brought some of them before the Society, in order to invite discussion upon the subject of ovarian cystomata.

Case 1. *Chronic Salpingo oöphoritis.*—The two tubes and ovaries exhibited were obtained by Dr. Alloway from a woman aged 38 years, who had been married 11 years. She had been twice pregnant, the last pregnancy occurring 11 years ago, when there was evidence that she suffered from septic peritonitis. Upon examination before operation the uterus was found contracted, the ovaries and tubes enlarged, fixed and acutely tender and painful upon pressure. Dr. Alloway operated upon May 22nd, and upon exposing the parts,

found extensive delicate veil like adhesions binding the ovaries to the surrounding organs; firmer adhesions bound the ovaries to the outer ends of the tubes. These numerous adhesions complicated the removal.

Left ovary and tube: The tube was tortuous and $\frac{3}{4}$ in. in diameter. The walls appeared firm and greatly thickened, but upon section the reverse was found to be the case, for the tube was greatly dilated and thinned in its outer half; the smaller and narrower proximal half alone showed thickening of the walls, while the dilated region was filled with thick, almost solid, inspissated pus, which presented no cell structure, but only granular and fatty débris. There was almost complete stenosis of the uterine extremity of the tube; the ovarian extremity was completely occluded and was distended, all indications of the fimbriæ having disappeared. Upon the outer wall of the tube close to the ovary, there was a small white body of the size of a No. 12 shot; this, when opened, was seen to be a cyst filled with similar inspissated cell débris, but unconnected with the lumen of the tube. The ovary, which was of fair size, presented in the substance of its inner half a cyst as large as a pea. This possessed a well-marked capsule, and was filled with similar fatty cell débris. Apparently this was the remains of an enlarged and suppurating Graaffian follicle. The outer half of the ovary was almost entirely formed of a corpus luteum, with thickened sinuous walls and firm central area containing blood pigment.

The right tube presented a condition similar to that of the left. It was enlarged and tortuous, and its occluded extremity was adherent to the ovary. There was the same almost solid cheesy material filling the thinned and distended outer half; no trace of the fimbriæ could be determined, either externally or coiled within the tube. Immediately below the tube and to its outer end was a cyst with contents similar to those of the tubes and cysts already described. The outer wall of this cyst was in direct contact with the ovary, and it was a question as to whether this was of ovarian or ligamentous origin. The ovarian tissues could not be traced into its walls, and this, together with the position, favored the latter view. The right ovary, like the left, contained a small cyst filled with cell débris and an old corpus luteum, and neither attained to the dimensions of those in the left ovary.

The well-formed veil-like adhesions, the nature of the contents of the tubes and abscess cavities, the complete disappearance of the fimbriæ, all indicate a peculiarly long-standing condition, as also did the history and sterility of eleven years' standing, but the most instructive feature of the case is the series of cysts here presented, for these masses of semi-

solid fatty material, surrounded by definite capsules, may quite rightly be described as cysts. Clearly, there had been a tendency towards the formation of chronic suppurative foci, not only in the tubes and ovaries, but also around them, so that we have cysts of inflammatory origin (1) in the ovaries themselves, starting in the corpora lutea, (2) in the broad ligament, (3) upon the outer wall of the Fallopian tube, and (4) in the Fallopian tubes; for these have become occluded, and each with its lumen distended by old inflammatory products may be looked upon as cystic.

Case II. *Pedunculated Sub-peritoneal Fibromyoma: Cystic Graaffian Follicles*.—Here was a sub-peritoneal fibro-myoma attached to the posterior portion of the uterus by a ligamentous membrane, which allowed it to be quite distinct and separable from the uterus. The ovaries in this case also showed evidence of disease. The right one was of fairly normal size; on section, a cavity with a sinuous wall was seen; this cavity is certainly nothing other than a large corpus luteum which has undergone cystic degeneration and is now being absorbed, so that here is another form of cyst of the ovary. In the last specimens we had to do with a cyst which resulted from the suppuration of a Graaffian follicle or corpus luteum; in this one we have a corpus luteum which, instead of undergoing its normal course of enlargement, followed by atrophy, has increased abnormally (it was at least 30 millimeters in diameter). The blood first poured out had become absorbed, and was replaced by a fairly clear fluid, and only now, judging from the sinuous capsule, was absorption taking place. The left ovary in this case showed two other cystic conditions. One appeared to be a comparatively recent corpus luteum, the blood pigment still being in it, with little crystalline masses of hæmatoidin, the centre being a clear cystic space. The second was a simple cyst partially filled with semi-solid broken-down cell matter, the rest of the cavity being filled with clear fluid.

Case III. *Multilocular Ovarian Cyst of Great Size: Cystoma Proliferum Glandulare*.—This case, sent by Dr. Gardner, is interesting on account of its great size, and from the fact that upon first sight it appeared to be one huge single cyst, completely filling up the lower abdominal region. There were, however, towards the lower and hinder portion a few small cysts connected with it, corresponding, it would seem, to the region of the original ovarian tissue, and upon the anterior wall could be felt three or four hardened areas, or "plaques," the largest being several inches in diameter. Upon opening the large cyst and removing the mucoid material contained, these flattened plaques could be seen projecting lightly into the interior. The specimen had

been sent in order to determine the nature of these thickenings of the wall.

Waldeyer has divided the ovarian cystadenomata into two classes, which, it must be admitted, are not sharply separated, for a very large proportion of ovarian cysts, if carefully studied, must be placed under both of his headings. These are: (1) that of the "cystoma proliferum papillare," in which the connective tissue of the wall of the mother cyst undergoes great proliferation, forms papillomatous projections, and the papillæ, covered by a layer of epithelium, and coming into contact here and there, form thus the secondary cysts; (2) in the second class, or that of the "cystoma proliferum glandulare," it is the columnar epithelium lining the mother cyst that is the more proliferous, and that dipping down into the underlying connective tissue, there form follicles, which, becoming occluded, develop into the secondary cysts. Now, the plaques in this specimen, when examined microscopically, are seen to be composed of a relatively so small amount of fibrous stroma, enclosing very numerous small follicles and cysts lined by a single layer of columnar epithelium, tending to invade the capsule of the mother cyst. Hence to this extent the tumor must be classed as an adeno-cystoma of the glandular type.

We have, therefore, in the series of examples brought before the Society, a not uninteresting series of the main forms of cystic growth in the ovary, the dermoid cysts alone being deficient. We have the Graaffian follicle, which, owing, it would seem, to coincident inflammation in and around the ovaries, forms a corpus luteum of great size and aberrant course, becoming either the seat of inflammatory change itself, so that the cavity contains eventually broken down cell material, puriform débris, or again becoming a cyst of moderate size filled with clear fluid. And again, we have a very fair example of the form of multilocular ovarian tumor of the more important type clinically, with regard to whose etiology there is still divergence of opinion.

Are the multilocular ovarian cysts, the cystadenomata, also developed, like the simple cysts above described, from Graaffian follicles, or have they another origin? The fact that the columnar epithelium lining them is of a simple type, that they and the tumor which they form are of an embryonic type, and that coincident with this more or less embryonic nature the tumors are of fairly rapid growth and incline towards malignancy, are, on the whole, against the view that they develop from mature Graaffian follicles. And with Waldeyer and Malassez it is generally held that they are developed from an earlier stage; that just as the Graaffian follicles themselves originate from processes or follicles growing inwards from the epithelium covering the surface of the foetal

ovary, so these tumors arise from similar ingrowths in later life; and Malassez has seen such ingrowths from the surface, resembling a cylinder epithelioma. On the other hand, Ritchie states that he has observed the ovum or its remnant in the smaller cysts of a multilocular tumor, and these smaller cysts, like the Graaffian follicles, have limpid contents; while Galabin has seen processes similar to cylinder epithelium starting from Graaffian follicles, and not from the surface. There is, it appeared to Dr. Adami, no inherent improbability that the adenomatous growth should start from the adult (glandular) follicles, just as adenoma or carcinoma of the mammary gland is supposed to start from adult gland tissue in the mamma.

The matter might seem to be one of minor import, for the same original epithelium is implicated in both cases, the only question being as to the stage of development reached by that epithelium at the moment when the tumor begins to form. Nevertheless, it is one that has been much discussed, and a series of examples, such as those brought before the Society, might serve to start and illustrate a discussion on the subject.

Dr. ALLOWAY, commenting on "Case I" of the series just discussed by Dr. Adami, said that since her last childbirth, 11 years ago, when she had puerperal fever, she suffered from pelvic pain, so severe as to almost incapacitate her for work, and that this history led him to suspect that she had wholly inflamed and adherent ovaries and tubes, and that there was also pus, possibly in an inspissated condition, in the tubes. He was pleased to find such was the case. In the operation he found great difficulty in separating the adhesions, which, from their density, must have been there for years. He ligated the tubes close to the uterus, where they were not inflamed. Good recovery.

Case II was a subperitoneal fibro-myoma, which is much more common in the negress than in the white woman. The uterus was in ante-version, somewhat enlarged (9 centimetres in depth), but not sufficiently so to produce much hemorrhage. The fact of the tumor being entirely separated from the uterus simplified the operation; it was only connected to the uterus by a ligamentous band, which was covered with peritoneum,—in fact, by a sort of mesometrium. To cause the complete disappearance of all the symptoms, he thought it better to bring on the menopause, and, to do this, adopted Tait's operation—the removal of the appendages. This, where the uterus is not very much enlarged, is adequate, safer, and, therefore, a better operation than total extirpation. The tubes were found, on pathological examination, to be chronically inflamed.

CANADIAN MEDICAL ASSOCIATION.

A good many years ago it occurred to some of the members of the profession in the Dominion that there should be a way of forming a closer bond of union among the doctors in all the provinces. With that object in view, a Medical Conference was called, with delegates from each of the provinces, to consider the matter. They met in the Hall of Laval University, Quebec, on Wednesday, Oct. 9th; Dr. James Arthur Sewell, President of the Quebec Medical Society, was in the chair; Dr. Alfred Belleau acted as secretary.

After some preliminary business had been transacted, Dr. Wm. S. Harding of St. John, N.B., moved, seconded by Dr. Wm. Marsden, Quebec, Q.: "That it is expedient for the Medical profession of the Dominion of Canada to form a Medical Association, to be named the Canadian Medical Association."—Carried.

A nominating Committee was appointed; they brought in a report, which, after some discussion and one or two amendments, was adopted, the first officers of the Association being:—

President: Hon. Charles Tupper, C.B., Halifax, N.S.

Vice-Presidents: For Quebec, Dr. Hector Peltier, Montreal, Q.; N.S., Dr. R. S. Black, Halifax, N.S.; N.B., Dr. LeBaron Botsford, St. John, N.B.; Ont., Dr. E. M. Hodder, Toronto, Ont.

General Secretary: Dr. Alfred G. Belleau, Quebec.

Local Secretaries: For Quebec, Dr. W. H. Hingston, Montreal; N.S., Dr. Jas. R. De Wolf, Halifax, N.S.; N.B., Dr. W. S. Harding, St. John, N.B.; Ontario, Dr. Wm. Canniff, Belleville, Ont.

Local Treasurer: Dr. Robert Henry Russell, Quebec.

Thus commenced an organization, the value of which cannot be over-estimated by the profession of the Dominion.

Since these large and successful provincial societies have sprung up, it has been thought that the work of the Canadian Medical Association had been completed.

Fortunately for the profession generally, this has been held by but a limited number, and up to the present all attempts to curtail its usefulness have failed. During the last few years there has been much enthusiasm over the meetings, and attendance has been large. Next year the meeting will be held in St. John, N.B., some time in September; and if united effort can do anything, the members of the profession in the Maritime Provinces intend to make this one of the most successful meetings the Association has ever known.

ELEVENTH INTERNATIONAL MEDICAL CONGRESS.

A letter directed to the undersigned by the Secretary General of the Eleventh International Medical Congress, and dated December 19th, 1893, contains the following communications:

"American members will pay on the English, French and Italian railways single fares for double journeys, and will obtain a reduction of twenty per cent. on fares for Italian round-trip tickets.

"The documents required for their identification will be sent to you in January, and Americans intending to visit the Congress will have to apply to you for them.

"Full particulars concerning the journeys will accompany the documents.

"Messrs. Thos. Cook & Son, London, Paris, Rome and Naples, should be applied to for accommodation and for tickets for the excursions at Rome, Naples, and to Sicily. Such excursions will be arranged at Rome under the guidance of Mr. Forbes, member of several scientific societies and correspondent of the *Times*—for Naples, three days, including Vesuvius, Pompey, Capri, Sorrento, Castellamare, Bajae, etc.—for Sicily, ten days from Naples, including Messina, Taormina, Catania, Girgenti, Siracuso, Palermo, and return to Naples.

"The fares for members of the Congress will be considerably reduced, and comprise hotel accommodations, carriages, guides, boats, etc.—about 70 fcs. each for the three days, and 285 fcs. for the ten days.

"Full particulars concerning these excursions will be contained in a leaflet to be added to the instructions and documents for the journey."

From former communications the following are herewith quoted: The members' fee is five dollars, that of their wives or adult relations two dollars each. Checks or money orders may be sent to Prof. L. Pagliani, Rome, Italy. Credentials have been promised in the near future. When they arrive (none were received last year), they may be too late for many who have started or are about to start. The undersigned, who is not informed of the cause of delay, proposes to supply, in as official a form as he thinks he is justified in doing, credentials which are expected to be of some practical value. The North German Lloyd has promised to recognize them. It is suggested, besides, that a passport may increase the traveller's facilities.

Only the North German Lloyd (22 Bowling Green) and the Compagnie Générale Transatlantique (3 Bowling Green) have thought fit to grant any reductions to Congressists.

The reductions on Italian railways are available from March 1st to April 30th.

A. JACOBI, M.D.,
110 W. 34th Street, New York.

11th January, 1894.

LECTURE ON THE CONDUCT OF MEDICAL LIFE.

By S. WEIR MITCHELL, M.D., I.L.D.

A soldier was asked in my presence what was, in warfare, the most interesting thing. He said, "Recruits going into their first battle." What he thought as to the young soldier I feel whenever it is my lot to see a mass of men about to turn from the training of the schools and to face the grim realities of the physician's life.

Here before me are some hundreds of men in the morning of existence. Where will the noonday find you? And the evening hour, when labor is over, and, looking back, the conscience, undisturbed by new ambitions, shall make up the ledger of a life—will it leave you weighted with the debts of wasted chances or rich with the honest interest of accumulated character? That the veteran, like myself, should look with a certain sad curiosity at a group of young soldiers is not strange. Here are men of varied individuality, of unequal fortunes of every condition of life—some for whom all their ways have been thus far made easy, some for whom life has been always hard. Here, at least, within these walls you have all had equality of opportunity. Let me hopefully presuppose you one and all to have used with diligence the precious years of training. You have thought, of course, of what you want to win. You vaguely call it success—success in life. That may mean many things you did not want or expect. You will fail where you least look for failure. You will win what you never dreamed of getting.

I shall try to remember only that you are all to be of the great army of medicine. First of all, I own for you the wish that in this vast organized body you shall take honest pride. Through it you will earn your bread, and, I trust, much besides a mere living. That you may correctly estimate its splendid history, that you may fitly comprehend the opportunities it gives, let us look a little broadly for a time at some of its virtues and some of its values. I could wish that you were really taught something of the wonderful history of medicine. I have myself ancestral pride in the splendor of its conquests, the courage and heroism of its myriad dead. I am fond of saying it is a guild, a fellowship, a brotherhood, older than civilization. It had a creed of moral life antique when Christ was born. No other organization is like it. Customs,

code and creed separate the lawyer and clergyman of different lands, but we in all lands hold the same views, abide by the same moral law, have like ideas of duty and conduct. From Japan to London you may claim medical aid for self or wife or child, and find none willing to take a fee. There is something fine and gracious in this idea.

I once asked the care of a physician I never saw or heard of before, in a German town. As I was about to pay him, a card dropped from my pocket-book. He glanced at it, and said, "But you are a doctor; I can take nothing—nothing." I remonstrated in vain. "No," he said, "you will make it up to some other doctor." I believe that I have paid this debt and other like debts with interest. I hear now and then of men who break this beautiful rule which makes professional service given by one physician to another a friendly debt for which the whole brotherhood holds itself responsible. Doctors are said to differ, but these bonds of union and generous amity are mysteriously strong. Try to keep them so, and when you serve medical men, go about it as if they were laymen. Put away all thought of wasted time, of the commercial values of what you give. The little biscuit you cast on the waters will come back a cheerful loaf. I consider it a glad privilege to help thus my brothers in medicine, and let me assure you few are more heavily taxed than I.

And there is another privilege your profession brings. From the time you graduate until you cease to work, whether in town or country, hospital or wretched homes, the poor will claim from you help in time of sickness. They will do it, too, with tranquil certainty of gracious service on your part.

The greatest of moralists has said, "The poor ye have always with ye." I think He meant to speak of the poor as representing opportunities for self-sacrifice never absent. Of a certainty it applies to us. The poor we have always with us—the sick poor.

On every Friday I conduct the clinical out-service at the Infirmary for Nervous Disease. I never go through these long and tiresome hours of intense attention without feeling that it is needful to put some stress on myself that I be not negligent or hasty, vexed or impatient, or fail as to some of the yet finer qualities of social conduct. I want you also to feel that such self-watchfulness is needed. These early years among the poor, or the class of uncertain debtors, are apt to make some men rude, uncared and ill-tempered. Most honestly do I say that such work is what I may call an acute test of character.

A part of your life-work consists in giving of your best to those who cannot pay. A part consists in work for honest wages. I think you happy in that our work is not altogether paid

labor, and not wholly work without pay. In both are chances which, rightly used, make the good better, the wise wiser; and there are many sides to it all.

I do not like to leave this subject without a living illustration. It is strange and interesting to see what our life does with different kinds of men.

I once went through a hospital ward in France watching the work of a great clinical teacher, long gray in the service of the sick. It was as pretty and gracious a thing as one could see. The examinations were swift, the questions few and ready. Clearly, he liked his work. A kindly word fell now and then; faces lit up as he came near. Now and then he answered a patient gravely and simply where there was real reason to do so, and twice I observed that when he did this he sat down, as if in no haste—a nice trait of gentle manners. It was a ward of women, and he was very modest—a too rare thing in French hospitals in my student days. When he went away his interne told me that he had been very sharp with him for a piece of neglect, "but," said the doctor, "he never says a word of blame at the bedside." In fact, this great physician was a gentleman—a much abused word—but think what that may fully mean; a man in the highest sense of manhood—so gentle (good old English word) that every little or large act of duty or social conduct is made gracious and beautiful because of the way of doing it.

I saw a week later, a great French surgeon in his clinic of women. The man was as swift and as skillful as could be. He was also ill-tempered, profane, abrupt and brutally immodest—a strong, rough, coarse machine; and this was what the medical life had done with two men. With less intellect this rude nature must have altogether failed of success in life. He did not fail being a man of overwhelming force and really admirable mental organization; and so when you read of Abernethy's roughness and the like, pray understand that such great men as he win despite bad manners, and not because of them. There is no place where good breeding and social tact—in a word, habitual good manners—are so much in place as at the bedside or in the ward. When Sir-Henry Sidney wrote a letter of advice to his son—the greater Sidney, Sir Philip—he said: "Have good manners for men of all ranks; there is no coin which buyeth so much at small cost."

A clever woman of the world once said to me: "I sent for Dr. A. yesterday, and by mistake the servant left the message with Dr. B. He came at once, and really he was so well-mannered and pleasant that I quite forgot what a fool he is."

I know men who have had large success in practice chiefly because of their gentleness and

sweetness in all the relations of life. I know of far more able men who have found life hard and the winning of practice difficult, simply because they lacked good manners or wanted tact. We began about the poor, and here we are discussing manners. I had not meant to say of it so much, but, on the whole, I am not sorry. Pray remember, finally, that neatness of dress and the extreme of personal cleanliness are, shall I say, a sort of physical good manners, and now-a-days the last words of science are enforcing these as essential to surgical success.

There is a wise proverb of the East: "He who holds his tongue for a minute is wise with the wisdom of all time." I am fond of proverbs, and this is full of meaning, for really to refrain from instant speech when irritated is victory. An hour later you are sure to be silent enough. The temptation to speech is momentary. Above all, try not to talk of your patients—even with doctors. It is usually a bore to be told of cases, and we only stand it because we expect our own boring to be, in turn, endured. But my ideal doctor who reads, thinks, and has a hobby will not need to gossip about patients. He will have, I trust, nobler subjects of conversation. When I hear a young man talk cases or read them in societies with heavy detail of unimportant symptoms, I feel like saying of him, as was once said in my presence of one who amply justified the prediction, "That man has a remarkably fine foundation for dullness in after life."

The methods of note-taking you are well taught, and, too, I hope, the best ways of examining your cases. As to this, circumstances must guide you. A patient is often a bad witness, and one man gets at the truth of his case—another does not.

As to acute cases, it is immensely valuable to learn through concentration of attention to be rapid without omissions. Dr. Edward Dalton is quoted as saying to his class: "After careful and repeated auscultation, percussion, palpation, and even succussion of your patient for twenty minutes, *you* may not be very tired. *He is.*"

As you go on in practice you will get to be fond of certain drugs.

Be careful of this habit, which has its reasonable side. Even the best of us fall into this therapeutic trap. I once met in consultation the late Prof. Blank, a delightful and most able physician. As I came out of the house I fell upon his son, also a doctor. "Ah!" he said, "you have been meeting my father; I am sure he advised Plumer's pills"—an old mercurial preparation. It was true.

As I watch the better medical practice, I see a tendency to rely less upon her mere drugs, and more and more sharply to question their value.

The true middle course is to be sceptical

as to new drugs, to test them over and over before being mentally satisfied. Nor is it well to run into the extreme, which in our civil war caused an order forbidding the use of calomel, because of the folly and indiscretion with which a few men had used it. After all, one of the most difficult things in ours, the most inexact of sciences, is to be sure of the value of a drug. When studying the poison of serpents, I found the most positive printed evidence of the certain value of at least forty antidotes. Not one of them was worth the slightest consideration. Such a fact as this makes one careful of crediting the endless cures to be read in the journals.

When you come to read over the works of the great masters, dead or living, and to see how Sydenham or Rush, Cardan or Bright, did their work, you will be struck, as I have been, with the great stress laid upon habits of living—what shall be eaten, diets, exercise, clothing, hours of work and rest. Curiously enough, these dicta are more often found in their records of cases than as positive theses; a proof that, in his practical work, a man may be better and wiser than in his generalizations. When, therefore, you come to deal with chronic conditions, be sure to learn all there is to learn as to the ways of men, their diet, clothing, sleep, work, play, wine and tobacco. I like to make a man describe to me, with minute care, his average day. Then I consider, usually, how much of what is clearly wrong may be set right by a life on schedule. After that comes the considerate use of drugs.

The desire for drugs is a remainder from barbarous times. It is much in the way of what I call natural medicine. *Do* this and *do not* do that might cover a large amount of useful treatment if men would but consider the doctor as a wise despot to be implicitly obeyed. But just here I wish to add that the very men who are most chary as to drugs are those who at times win splendid therapeutic victories by excessive diets or heroic use of powerful medicines.

Much nonsense is talked about the injurious influence of drugs until, in the very word drug, there is a malignant sound. Men used to be over-bled or salivated. This does not occur now-a-days. And if I asked your whole faculty how many people they have seen permanently injured by mere medication, I fancy they might be puzzled to bring to mind illustrations of such mischief. The belief is another survival of conclusions founded on premises which perished long ago.

Men in our profession fail more often, owing to want of care in investigating cases than for lack of mental power. One man looks at the urine carefully once, and decides; another looks once at the night and morning water, and concludes; a third asks that there be made no

change in diet or habits for a week, and examines the urine over and over, both night and morning secretion. Of course, this is the only right way. Troublesome? Yes, very! If you do not want to practise medicine as it ought to be practised, better far to get some business which will permit of indolent intellectuation.

A friend of mine had a consultation in the country as to a case of great importance. The attendant fell ill and could not meet him. My friend went over the case with care. It was one of persistent headache. He took home urine of the night and morning, and wrote word that the patient had uræmic intoxication. The attendant said "No;" that neither casts nor albumen were in the urine which he had thrice examined. At last, puzzled, my friend asked if he had studied the night urine. He said "No." And here was the mischief.

I saw to-day a woman of wealth and social importance who, for years, suffered cruelly from headache. Now, as it always began after an hour of very acid vomiting, a dozen of the ablest men in Europe and America, who were led off by the vomiting, failed to take in the whole possibilities, and did not question the eyes. But a little country doctor did, and a tendon or two clipped put that woman back in state of health. I was one of those who made the mistake, and yet I have written—was perhaps the first to write—on the eye as a cause of headaches of varied type. But to be constantly complete and exact in all examinations is, I admit, hard; nevertheless, in that way lies success.

And the like axiom applies to treatment. You are taught in acute disease to write your directions and to leave no possibility of change unprovided for. And the acutely ill are prisoners of our will. But how many men think it needful to write out a schedule of life, medicine, diet, exercise, rest for cases of chronic disorder—I do not say disease. I never tire of urging that in attention to minutiae lies the most certain success. A large practice is self-destructive. I mean that no over-busy man can continue to give always, unfailingly, the kind of care patients ought to have. But that is, as I said in my first lecture, a question of enduring energy, and of a firmly made habit of dissatisfaction with the incomplete. If medicine consisted only in mere intellectual endeavor; if to see, hear, feel, weigh, measure, in a word know all there is to know of a case, were really all; if, then, we only had to say do this or that, one's life might be sufficiently easy.

In time of peril, or under stress of pain, anyone, and always the great consultant, can secure absolute obedience. In the daily current of practice, fancy and unbelief, indolence, prejudice and what-not stand in our way. Busy men, indulged children, hysterical women are your worst difficulties. Then come into play

the moral qualities which, in union with educated intellect, make for the triumphs of the great healers of their kind. Are you gentle and yet firm? Have you the power of statement, which is so priceless a gift, the capacity to make the weak, the silly, the obstinate feel as you speak that your earnestness rests on foundations of kindness and of thoughtful investigation of their needs? Can you, in a word, make people do what you want? Have you the patience to wait untroubled by the follies of the sick, to bide the hour when you can carry your point? Have you the art to convince the mother that the sick child is the last of all who should be left to the misery of self-indulgence? Can you sit by the bedside and gently satisfy some hysterical fool of her capacity to take up anew the reins of self-government? It demands earnestness. It means honest beliefs. It exacts such rule over your own temper, such good manners as few possess in their highest degrees of quality and quantity. Above all, it means that dislike of defeat which makes the great soldier.

A fine thing in our profession that mere hatred of defeat. As I came once out of a consultation with Prof. Gross, he said: "Don't you hate it, sir?" "Hate it; what?" I said. "Hate what? Oh, to spend a life like yours, or mine, and be beaten—puzzled—licked, sir, by a miserable lump in a woman's breast." I always liked what General Sheridan said to me years ago. I asked how he accounted for his constant success in war. He hesitated, and then replied: "It was because I did so hate to be licked." No matter whence comes this feeling, it is valuable. Cherish it; never lose it. Find reason for disaster, but learn to loathe the result. I never see a death or a grave failure to cure that I am not personally hurt by it. I say, then, "A century hence this will be otherwise;" for as I am proud of the past of this great guild, so am I full of glad hope for its future, when it shall have learned the conquest of cancer and tubercle.

I have come half unexpectedly, as I draw to a close, upon this grave question of the moral qualities needed for the noblest success in medicine. It would lead me, and easily, to talk of the code, of your relations to the secrets of households, to the criminal law as to witnesses, of insurance cases and the like; but all of this I must leave unsaid; and reject the pages in which I had said something of the ethics of our profession.

You have chosen a life inexorably hard in what it asks of soul and mind and body; but be that as it may, you have taken upon you, I surely think, the most entirely satisfactory of earthly pursuits. I have seen much of men and their ways, but nothing I have seen entitles me to think there is any truer, better way of serving God and man, and in this service making your-

self what you ought to be.—From *Univ. Medical Magazine*.

AN ANTISEPTIC, ANALGESIC AND CALMATIVE ADMIXTURE.

H. B. Pettingill, M.D., Mystic Flats, 39th & Broadway, New York city, in an article on "Intestinal Antisepsis" in *New Phar. Prod.*, gives some excellent experience, from which the following is selected:

"Dr. Van Valgah, in a paper on the 'Causation and Treatment of Chronic Diarrhœa,' in the *New York Medical Record*, says: 'Having secured as nearly as we can a clean and sweet state of the digestive tube, our next object is to get perfect digestion of the food taken. This is an aim second to no other in importance. Undigested food in the wrong part of the intestine is an irritant. Rapid absorption is the chief barrier against super-digestion, fermentation and putrefaction, and perfect digestion is the essential preliminary to the easy and healthy performance of the function of the mucous membrane.' Now, with this condition of affairs and the administration of proper remedies, we can expect to destroy the pathogenic bacteria, and the resulting toxins can be rendered innocuous. The tyro-toxicons of Vaughan belonging to the toxalbumen type are readily destroyed by the decomposition of salol in the intestinal tract. Salol is a salicylate of phenol, and, as said before, is not acted upon until it passes through the stomach, and when the phenol is set free in the intestine it has its maximum antiseptic power. Now, in addition to this, we have the calmative and analgesic effect of the antikamnia, which effect is so often necessary, and where in many cases opium is contra-indicated.

"Every physician knows full well the advantages to be derived from the use of antikamnia in very many diseases, but a number of them are still lacking a knowledge of the fact, that antikamnia in combination with various remedies has a peculiarly happy effect; particularly is this the case when combined with salol. Salol is a most valuable remedy in many affections; and its usefulness seems to be enhanced by combining it with antikamnia. The rheumatoid conditions so often seen in various manifestations in this country are wonderfully relieved by the use of this combination.

"The five grain tablet, containing $2\frac{1}{2}$ grains each of antikamnia and salol, is recommended highly in the treatment of cases of both acute and chronic cystitis. The pain and burning is relieved to a marked degree. Salol makes the urine acid, and clears it up. This remedy is a reliable one in the treatment of summer diarrhœa, entero-colitis, dysentery, etc. In dysentery, where there are bloody, slimy dis-

charges, with tormina and tenesmus, a good dose of sulphate of magnesia, followed by salol and antikamnia, will give results that are gratifying."

In closing his paper, Dr. Pettingill adds: "It is also one of the best remedies for the relief of the headache and pains of influenza ('la grippe'). The muscular pains which so often accompany this disease, and which seem to be a part and parcel of it, are often relieved at once by a full dose of this combination. Great reliance can be placed in the admixture of these two drugs in those diseases in which the onset is sudden, and which are attended with great pain and hyperæsthesia, with intense nervous derangement, particularly when the temperature rises to 102° or 103° . By its antithermic, analgesic and neurotic properties, it fills a want scarcely found in any other remedy."

CLASS-ROOM NOTES.

—*Antipyrine*, Prof. Hare says, aids the elimination of uric acid from the economy.

—*Cannabis indica*, Prof. Hare says, will often be found to be very useful in cases of *Migraine*.

—Prof. Wilson says that only the severe cases of *Rubella* or *Rötheln* are followed by desquamation.

—*Belladonna* locally applied, Prof. Hare says, will be found very useful in cases of *localized Neuritis*.

—*Surgical Cases*, Prof. Keen says, should be dressed as seldom as the safety of the patient will admit.

—Prof. Wilson says that *Gastro-intestinal Ulcers* occasionally develop during the period of convalescence of an attack of small-pox.

—*Syphilis*, if it be due to vaccination, Prof. Wilson says, will have the chance in all cases appearing at the point of vaccination.

—Prof. Montgomery says that the *Uterus* should always be *Sterilized* by some antiseptic after an instrument has been introduced into it.

—A case of *Scirrhus* or *Atrophic Cancer*, seen only in the latter stages of the disease, should not, Prof. Keen thinks, be interfered with.

—*Adenomata*, according to Prof. Keen, are painful only at the period of menstruation, but *Sarcomata* are painful, independent of this period.

—The best treatment, according to Prof. Keen, in cases of *Tubercular Peritonitis* is to open the abdomen and drain for a long period.

—Prof. Parvin says that all drugs which by their therapeutic action tend to increase the *Arterial tension* will also increase the flow of the milk.

—As a rule, Prof. Keen says, in every four out of five cases of *Fistula in Ano*, the patient will be found to be of a tubercular character.

—*Malarial Fever*, according to Prof. Wilson, will be rarely met with, if at all, in those regions in which the temperature does not rise above 60° F.

—Glycerine or any of the mineral fats, Prof. Wilson says, should not be employed by inunction in the skin in cases of *Scarlet Fever*, but fresh animal fats should be employed in making inunctions.

—Prof. Hare says that a combination of bromide and caffeine will often cure a *Headache* that neither the bromide nor the caffeine alone will relieve.

—Prof. Parvin says that two hours should be allowed to elapse before active measures are instituted toward the forcible removal of a *Retained Placenta*.

—Prof. Parvin thinks that the *Invololution of the Sexual Organs* after confinement takes place more rapidly and satisfactorily if the mother nurses her child.

—Prof. Parvin does not favor the administration of ergot during the *Third Stage of Labor* unless the patient be a habitual bleeder, if hemorrhage be present.

—The *Hemorrhage* occurring in cases of laceration of the cervix, Prof. Parvin has found, can generally be controlled by the injection of hot water into the vagina.

—*Inability to Nurse*, Prof. Parvin says, is often due to heredity; brought on by the fact that a number of successive preceding generations did not nurse their offspring.

—Unless during the existence of an epidemic of smallpox, a child who is suffering from a cutaneous disease, or who is otherwise in poor health, should not be *Vaccinated*.

—Fifteen to twenty grains of bismuth and one to two grains of carbolic acid administered every hour or two, Prof. Hare says, will be found to generally stop *Reflex Vomiting*.

—*Fibromatous Tumours*, Prof. Keen says, are neither painful nor tender to the touch; they are also slow in growth. They may, he says, by pressure on adjacent parts, produce pain.

—The eruptions produced by the inoculation of *Vaccine Lymph* will manifest themselves, Prof. Wilson says, twenty-four hours earlier, if the inoculation has been performed by human lymph, than if performed by the bovine.

—Prof. Wilson says that relapses of *Scarlet Fever* are rare, but a secondary attack may occur at some later period, the first attack not conferring an immunity from subsequent attacks.

—*Cannabis indica*, according to Prof. Hare, will be found to be a very useful drug in stopping the *Cough of Phthisis*, and it possesses the advantage over opium in that it is not so depressant to the system in general.

—*Sarcoma*, Prof. Keen says, as a rule, is a disease of youth and not of old age. It makes its appearance generally during the period when the tissues are growing. It generally appears between the age of twenty and thirty, more so than after forty.

—Prof. Parvin says that during the *Period of Menstruation* the condition of the mother's milk is altered, and often is the cause of an attack of colic in the nursing child. But as soon as the menstrual period has elapsed then the milk returns to its normal condition.

—Camphoric acid, according to Prof. Hare, is the best drug that can be used in controlling the *Nightsweats of Phthisis*. It should be taken in doses of twenty to thirty grains, and two or three hours before the time that the sweats generally come on.

—*Anteflexion of the Uterus*, according to Prof. Montgomery, is of most frequent occurrence in women who have never borne children. It is also the displacement which is found of most frequent occurrence in the sterile woman.

—The tumour which is *Scrofulous* in character, Prof. Keen says, in the early stages will be found to be perfectly movable, but in the later stages it will be bound down tight and will be immovable, due to its having infiltrated into the surrounding tissues.

—The oxalate of cerium, either alone or combined with bismuth, Prof. Hare says, will very often be found to stop *Excessive vomiting*. Especially has this been found so in such cases as are due to a hyperacidity, or to an irritation of the mucous membrane of the stomach.

—Prof. Wilson favors the treatment of *Scarlet Fever* by chloral. Such doses, he thinks, should be administered as to keep the patient under its hypnotic influence to such an extent as to require waking at the time when food or medicine is to be administered.

—In cases of *Chancroids*, which are indolent in healing, Prof. Horwitz recommends the following:—

R.	Ung. hydrarg. nitrat.,	ʒj	
	Ung. iodoformi,	ʒij	
	Ung. zinci oxidi,	ʒss	M.

Sig.—Apply locally.

—Dr. Davis says, under frequent disinfections of the vagina, and irrigation through the rupture with boiled water, and the use of the tampon or drainage tube, a large number of cases of *Partial Rupture of the Uterus* will recover.

—In *Acute Urethritis*, in combination with an injection, Prof. Horwitz recommends the use of the following, in capsule :—

R. Cubebæ,	gr. v	
Copaibæ,	gr. x	
Salol,	gr. x	
Pepsin,	gr. j.	M.

Sig.—One three times a day.

—The recurrence of *Malignant Growth*, excepting Sarcoma, according to Prof. Keen, rarely appears before six months after the operation, and if such a recurrence does not take place within three years after the operation, the chances of its not recurring at all are the very best.

—Prof. Parvin calls attention to the fact that in opening an *Abscess of the Breast*, the incision should always be made longitudinally and not transversely. For, he says, when the opening is made by a transverse incision more milk ducts will be destroyed than if the incision had been made longitudinally.

—For *Colic in Children*, especially if associated with some nervous irritation, Prof. Hare recommends the following (the dose is for a child one year old) :—

R. Chloral,	gr. viij	
Sodii bromid.,	gr. xvj	
Syr. lactucarii,	f ̄ ss.	
Aquæ,	q. s ad	f ̄ j. M.

Sig.—Teaspoonful not oftener than every four hours during the night.

HIGHER MEDICAL EDUCATION.

In pursuance of the policy recently announced in the resolution to be presented to the American Medical College Association, the trustees and faculty of Rush Medical College have decided to require four years attendance at college from students who begin the study of medicine this year with a view to graduation in 1898; however, those who have already studied medicine one year or more with a preceptor, so that the four years of study, already required, will be completed before July, 1897, may graduate after three courses of lectures as heretofore. To encourage proper preliminary study, graduates in arts and sciences from high grade colleges, and graduates in pharmacy and dentistry from colleges requiring a proper amount of study and two full courses of lectures will, until further notice, be allowed to graduate after an attendance on only three courses of lectures.

PUBLISHERS' DEPARTMENT.

PERTURBED NERVOUS FORCES—AN UNSURPASSED COMPOSER AND PAIN-RELIEVER.

The season of pneumonia, typhoid, bronchitis, also the recurring epidemic of influenza, while not so malignant as its predecessor, la grippe, still makes *apropos* an extract from *The Medical Summary*. It says, in speaking of the action of antikamnia :—

"This drug has a well-earned character as an analgesic. It is one of the few among the many claimants for favor that have successfully stood the test of experience. In a case of acute poly-articular rheumatism prominently affecting both knees, where there was great swelling and exquisite tenderness of the articulations, two ten-grain doses at an interval of an hour procured almost complete relief, followed by several hours of restful sleep. This was the more remarkable as after one or two more doses there was comparatively little pain experienced to the close of the attack. For the relief of nervous headache, hemicrania, menstrual neuroses and neuralgias in general, it cannot be over-praised. In the prevailing epidemic of la grippe its usefulness as a pain-reliever and composer of the perturbed nervous forces is unsurpassed. It has become indispensable, and doubtless there is not a physician acquainted with its decisive action who could be induced to dispense with it. Five or ten grains as a commencing dose, then two, three or five grains every three or five hours, will relieve the severest cases, in a few hours causing the splitting cephalalgia, lumbar and general muscular pains and nervous disquietude to vanish. On the whole, it abates the fever and subdues the whole assemblage of perturbed activities that distinguish la grippe as no other agent, or combination of agents, has ever done, producing not a single unpleasant symptom and leaving no sequelæ. Quinine checks ague, digitalis energizes the drooping heart, ergot promotes uterine contraction, but their action is no more nearly specific than is that of antikamnia in its sphere of usefulness." In line with and supplementary to the foregoing, Hugo Engel, A.M., M.D., late Lecturer on Electro-Therapeutics, Jefferson Medical College, Professor of Nervous Diseases and Clinical Medicine, Med. Chir. College, and Consultant in Nervous Diseases at St. Joseph's Hospital, Philadelphia, says : "The remedy has become a favorite with many members of the profession. 'It is very reliable in all kinds of pain, and is quickly acting as a hypodermic injection of morphia. It is used only internally. To stop pain, five grains are administered at once; three minutes later the same dose is repeated, and, if necessary, a third dose given three minutes after the second. If ten minutes after the third dose the remedy has had a decided effect, but a little of the pain be remaining, a fourth dose of gr. v. may then be administered. In 92 per cent. of all cases it immediately stops the pain.

"The following is an excellent prescription in la grippe and painful bronchial catarrh :—

R. Antikamnia (genuine).....	̄ ij
Mist. Glycyrrh. Comp.....	̄ ij
F. E. Rad. Glycyrrh.....	̄ ij
Vini Rubri Gall.....	q. s. ft. ̄ vj

"M. Sig.—Two teaspoonfuls every three hours.

"For whooping-cough in a child four years old :

R. Antikamnia (genuine)..... r. xxxv |

"Divide in chart, No. xij.

"Sig.—At night, one powder every fifteen minutes until three have been taken. Administer in dilute claret, or port or sherry wine.

"As an antipyretic, from gr. v. to gr. x. should be given every ten minutes until the temperature has been reduced, or 40 to 50 grains have been taken, when the same dose is repeated at longer intervals, until the desired effect is obtained."

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Writers of original communications desiring reprints can have them at a trifling cost, by notifying **JOHN LOVELL & SON**, immediately on the acceptance of their article by the Editor.

MONTREAL, MARCH, 1894.

HOW TO PUT A STOP TO HEREDITARY CRIMINALITY.

On several previous occasions we have called attention to the stupidity which characterizes society's present method of dealing with habitual criminals. During the last few years the view has been steadily gaining ground that impulse to crime is an inherited taint; that the criminal is an atavistic creature no more to be blamed for his acts than the child of syphilitic parentage to be called to account for his unlovely skin, or bones, or teeth; and yet every year several hundred thousand habitual criminals, who have been convicted several times of brutal crimes, are allowed to go forth from the prisons to sow a crop of several hundred thousand children, who will be born criminals, and who will in due time prey on society, and require in turn to be imprisoned at society's expense. The whole tendency of science at the present day is to prevent rather than to go on from generation to generation treating disease. Thus have cholera, the black plague, small-pox been almost made to disappear from off the earth, and before many years we will be able to say the same of diphtheria, scarlet fever, measles and consumption. Why should not the physician in charge of social disorders take the same preventive measures? Why go on eternally imprisoning and executing the aberrant race of criminals, when, by a simple and painless operation, an end could be put to the breed forever? Asep-

tic castration applied to every man or woman convicted twice of deadly assault or highway robbery, to every man convicted twice of rape or other abominable crime, would forever remove from them the power to inflict their beastly character upon thousands of innocent babes condemned from their birth to a childhood of misery and a youth of crime. There is nothing cruel or savage about the idea: for it is not to be compared with judicial murder which society fully justifies for her own protection. On the contrary, castration would be an ideal punishment, for all treatment of criminals should be directed to the sole object of preventing crime in the future rather than to have revenge for it in the past, and it would probably in most cases convert the criminal into a gentle and useful member of society. Not only would castration empty our prisons in a generation or two by the lack of supply of criminals, but even the immediate effects upon the diminution of crime in one day would be very marked, for the deterrent effect of this penalty would be even greater than the penalty of death itself. In our former article we quoted from the criminal statistics in England, showing that one criminal alone left behind him nearly one hundred descendants to occupy the prison cells. We feel sure that this remedy has only to be more fully considered in a truly philanthropic light in order to receive the approval of our legislators and of public opinion at large. Without castration, society must, for its own protection, continue to treat cruelly and unjustly unborn generations of wild beasts in human form. It would be more merciful to them as well as to their innocent victims if the criminal class should, by the above means, forever cease to be.

BOOK NOTICES.

A TEXT-BOOK OF PHYSIOLOGY. By Michael Foster, M.D., F.R.S., Prelector in Physiology in the Univ. of Cambridge; Fellow of Trinity College, Cambridge, New (5th) American from the 5th English edition, thoroughly revised, with notes and additions. In one handsome octavo volume of 1083 pages with 316 illustrations. Cloth, \$4.50; leather, \$5.50. Philadelphia: LEA BROTHERS & CO., 1893.

Both teachers and students of physiology in

America are under deep obligations to the publishers for having undertaken the reproduction in this country of such a costly work as this. One cannot read a single chapter without being impressed with the care which the author has bestowed upon it. Apparently, nothing that is known up to the present year concerning vital processes has escaped his painstaking attention; no matter how trivial the details, they receive the fullest consideration. The additions which have been made to this last edition are caused, not by any attempt to enlarge the scope of the work, but by an effort to explain more fully and at greater length what seemed to be the most fundamental and important topics. The publishers have subjected it to the searching revision of one of the foremost American professors of Physiology, but the American editor, we are glad to see, has not abused his right to make additions, there being very few sentences in brackets, but he has added a considerable number of illustrations, which greatly help to explain the text. He would be a bold critic who would venture to find fault with the work of the distinguished Cambridge professor, and for our own part we have nothing but words of the highest praise for the classical and thorough manner in which the work is written, as well as for the liberality of the publishers for selling such a large work, and one which must necessarily be very costly to produce, for the extremely moderate price mentioned above. The same work can only be purchased by the student in England in five volumes, costing three times as much as the American edition. That the students of America have appreciated the enterprise of the Lea Brothers is evidenced by their having rapidly exhausted four editions, and still called for a fifth one now before them.

Lea Brothers & Co. are evidently determined to maintain the lead which they have held long as the principal *text-book* publishers of America. The book may be obtained from any bookseller.

ANATOMY, DESCRIPTIVE AND SURGICAL. By Henry Gray, F.R.S., Lecturer on Anatomy at St. George's Hospital, London. New American from the thirteenth enlarged and improved English edition. Edited by T. Pickering Pick, F.R.C.S., Examiner in Anatomy, Royal College of Surgeons of England. In one imperial octavo volume of 1100 pages, with 635 large engravings. Price with illustrations in colors: Cloth, \$7.00; leather, \$8.00. Price with illustrations in black: Cloth, \$6.00; leather, \$7.00. Philadelphia: LEA BROTHERS & Co., 1893.

We feel safe in saying that no Medical work has ever had so large and attentive a circle of readers as has the above.

Since 1857 Gray's Anatomy has unquestionably been the standard text-book on its subject among all English-speaking people. The demand for thirteen editions has been utilized by subjecting the work to the searching revision of the foremost anatomists of a generation. In no other way is accuracy and completeness to be attained in treating of so complex and detailed a science. The series of illustrations is quite as famous as the text. Their large size not only enables the various parts to be brought into view, but also allows their names to be engraved directly upon them. Thus not only the name, but the extent of a part is indicated at a glance,—a matter of obvious importance and convenience. Many new illustrations appear in this edition, and the whole series has been re-engraved wherever clearness could be promoted. The liberal use of colors lends added prominence to the attachments of muscles, to veins, arteries and nerves. The work is also published with illustrations in black alone.

As heretofore, the revision has been most thoroughly performed, so that the work is kept always abreast with the advances of its science. Special attention has been paid to the applications of anatomy to surgery, and the work is therefore indispensable to all who find in the exigencies of practice the need of recalling the details of the dissecting room.

One other special advantage which may be claimed for this edition is that it has been published in this country exactly as it appeared from the hands of the English editors, and is not therefore defaced by notes and comments of an American one. Gray's Anatomy has reached such a point of eminence and excellence that no other work can take its place, and it is doubtful if any other work will ever supplant it. As more and more stress is laid upon the importance of making anatomy the foundation of surgery, the medical student of the future will probably devote more and more time to his Gray, so that the volume will become indispensable to every Medical student. The volume before us is a great improvement on any other edition we have ever seen, and will no doubt meet with the ready sale which it deserves.

SURGERY. By Bern B. Gallaudet, M.D., Demonstrator of Anatomy and Clinical Lecturer on Surgery, College of Physicians and Surgeons, New York; Visiting Surgeon, Bellevue Hospital, New York; and Charles N. Dixon-Jones, M.D., Assistant Surgeon, Out-Patient Department, Presbyterian Hospital, New York. Being the final volume of The Students' Quiz Series, edited by Bern B. Gallaudet, M.D. Duodecimo, 291 pages, 149 illustrations. Cloth, \$1.75. Philadelphia: LEA BROTHERS & Co., 1893.

The issuance of the volume on Surgery marks the completion of the Students' Quiz Series. Like its twelve companion volumes, it is the product of well-known teachers and specialists in New York. The advantages of careful editorial supervision are manifest in the uniformly excellent presentation of the matter and in the compactness attained by skillful assignment of subjects in the original plan of the Series. The volume on Surgery is largely from the pen of the able editor, Dr. Bern B. Galaudet, though many of its sections were contributed by Dr. Charles N. Dixon-Jones. It is not to be classed with "compendes" or "summaries," but is on the contrary an *explanation* of the principles and practice of surgery in an exceedingly terse style. Its tables group a large amount of information in a very compact and convenient form. The volume is richly illustrated, about 150 engravings being printed in its three hundred pages. The exceedingly reasonable price indicates the expectation of a large demand, which is well merited.

The book is remarkably well written throughout, but the subjects of Inflammation, Tumors and Cysts, Brain Surgery and Abdominal Surgery have received especial attention. By avoiding discussion on all mooted points, the size of the volume has been kept down to comparatively narrow limits, and yet an immense amount of information has been introduced. Even the old practitioner might study it with advantage, for in the most concise manner it brings the old and often erroneous views of twenty years ago thoroughly up to date. This volume, though the last, is certainly not the least of the series; indeed, it is one of the most valuable of them all.

FEBRUARY "COSMOPOLITAN." The secret of the great success of *The Cosmopolitan* is not so hard to find, if one looks carefully over the number for February. A story by Valdés, the famous Spanish novelist, the first from his pen to appear in any American magazine, is begun in this number. Arthur Sherburne Hardy's story, "A Rejected Manuscript," is charmingly illustrated by L. Marold, who, we believe, makes his first appearance in the magazines on this side of the water. A profusely illustrated article on the designing and building of a war-ship appeals to the interest taken by all in the new navy, and a thrilling description of a naval combat, under the significant title: "The Meloban and the Pantheroy," describes, after the manner of the Battle of Dorking, a possible sea-fight, the outcome of which is watched by the entire naval world. "Gliding Flight" is an interesting contribution to the problem of aerial navigation by one who has studied the flight of soaring birds

in the East for twenty years. Elaine Goodale, who married a member of the Sioux nation, has some interesting information of Indian Wars and Warriors. T. C. Crawford, the Washington correspondent, gives the first half of a startling story, under the title of "The Disappearance Syndicate." The poetry in this number by Sir Edwin Arnold, Graham R. Tomson and William Young is unusually good. The departments "In the World of Art and Letters" and the "Progress of Science," continue to have as contributors men famous in both continents.

AN AMERICAN TEXT-BOOK OF GYNECOLOGY, MEDICAL AND SURGICAL. For the use of Students and Practitioners. By Henry T. Byford, M.D., John M. Baldy, M.D., Edwin Cragin, M.D., J. H. Etheridge, M.D., William Goodell, M.D., Howard A. Kelly, M.D., Florian Krug, M.D., E. E. Montgomery, M.D., William R. Pryor, M.D., George M. Tuttle, M.D. Edited by J. M. Baldy, M.D. Forming a handsome royal 8vo volume, with 360 illustrations in text and 37 colored and half-tone plates. Price, Cloth, \$6.00; Sheep, \$7.00; Half Russia, \$8.00. W. B. Saunders, Publisher, 925 Walnut St., Philadelphia, Pa.

In this volume all anatomical descriptions excepting what is essential to a clear understanding of the text have been omitted, illustrations being largely depended upon to elucidate this point. It will be found thoroughly practical in its teachings, and is intended, as its title implies, to be a working text-book for physicians and students. A clear line of treatment has been laid down in every case, and, although no attempt has been made to discuss mooted points, still the most important of these have been noted and explained; and the operations recommended are fully illustrated, so that the reader may have a picture of the procedure described in the text under his eye and cannot fail to grasp the idea.

All extraneous matter and discussions have been carefully excluded, and the attempt made to allow nothing unnecessary to cumber the text.

The subject matter has been brought fully up to date at every point, and the work is as nearly as possible the combined opinion of the ten specialists who figure as the authors.

The work is well illustrated throughout with wood-cuts, half-tone and colored plates, mostly original and selected from the author's private collections.

The chapter on Technique of Gynecological Examination is especially good. This chapter contains the most recent and approved methods of preparation of the operator, assis-

tants, nurses, and patient for operations, both abdominal and vaginal; the best and most reliable methods of preparation and disinfection of sponges, ligatures, sutures, and instruments. In fact, the success of modern gynecological surgery rests on the adoption of the principles and details described in this chapter, which has been brought fully up to date.

Another chapter deserving special mention is the one on Pelvic Inflammation, which is considered from an entirely different standpoint from that found in the older text-books. The subject is covered in a thoroughly practical manner. The pathology and etiology are clearly pointed out, the result described, and the management and treatment in all places considered in detail. The old and confusing nomenclature and pathology have been dropped, and the data given from facts as found to-day, instead of from theory and tradition. Salpingitis, pyosalpinx, hydrosalpinx, hematosalpinx, pelvic peritonitis, and pelvic cellulitis are also included under this chapter-heading.

There are many other chapters in which important subjects are treated in a manner not usual in the text-book, so that the work is of special value to the practitioner. Much of the teaching in the older text-books will have to be untaught in the light of modern knowledge, but in this work such is not the case. If anything, in a few cases the treatment is a little ahead of the times, being rather more rigorous than is always warranted. But on the whole the views expressed are those held by the leaders of gynecological teaching in the United States. Considering the number of illustrations, the cost of the work is surprisingly moderate.

ESSENTIALS OF PRACTICE OF MEDICINE.

Arranged in the form of questions and answers. Prepared especially for students of medicine. By Henry Morris, M.D., late Demonstrator Jefferson Medical College, Philadelphia; Visiting Physician to St. Joseph's Hospital; Fellow College of Physicians, Philadelphia; co-editor Biddle's *Materia Medica*, author of *Essentials of Materia Medica*, etc, etc. With a very complete Appendix, on the examination of Urine, by Lawrence Wolff, M.D., Demonstrator of Chemistry, Jefferson Medical College. Colored (Vogel) urine scale and numerous illustrations. Third edition, revised and enlarged by some three hundred essential formulæ, selected from the writings of the most eminent authorities of the medical profession. Collected and arranged by William M. Powell, M.D., Attending Physician to the Mercer House for Invalid Women at Atlantic City, N. J. Philadel-

phia: W. B. Saunders, 925 Walnut Street. 1894. Price \$2.00.

The fact that this small Manual of the Practice of Medicine should have passed three editions since its issue in the latter part of 1890 is sufficient guarantee of its popularity, and that the Author's plans have not miscarried.

Great care has been exercised in the revision not to increase its size, and thus rob it of its usefulness to the student, who has but little time for large and exhaustive works. All obsolete and useless matter has been omitted, and the very latest physical diagnosis and treatment substituted, thus bringing the work thoroughly abreast with the times.

PAMPHLETS.

THE AFTER-TREATMENT OF CÆLIOTOMY CASES, WITH SPECIAL REFERENCE TO SHOCK AND SEPTIC PERITONITIS. By Eugène Boise, M.D., Grands Rapids, Mich., Gynecologist to St. Mark's Hospital; Fellow of the American Association of Obstetricians and Gynecologists.

CARCINOMA OF THE UTERUS. By J. M. Baldy, M.D., Professor of Gynecology in the Philadelphia Polyclinic; Surgeon to the Gyneccean Hospital. Reprinted from the Proceedings of the Medical Society of the State of Pennsylvania, May, 1893.

THE SURGERY OF THE URETERS; A CLINICAL, LITERARY AND EXPERIMENTAL RESEARCH. Read in the Section on Surgery and Anatomy at Forty-fourth Annual Meeting of the American Medical Association, June 8, 1893, by Weller Van Hook, A.B., M.D., Professor of Surgery in the Chicago Post-Graduate Medical School.

A CASE OF MEDIASTINO-PERICARDITIS IN A CHILD; SECONDARY EMPYEMA; OPERATION; DEATH. By William A. Edwards, M.D., San Diego, California, Fellow of the College of Physicians of Philadelphia, American Pediatric and Philadelphia Pathological Societies; formerly Instructor in Clinical Medicine and Physician to the Medical Dispensary in the University of Pennsylvania; Physician to St. Joseph's Hospital; Associate Pathologist to the Philadelphia Hospital; and Member Advisory Council for the Section on Diseases of Children of the Pan-American Medical Congress. Reprinted from the *International Medical Magazine* for June, 1893.

THE NEW TREATMENT OF HERNIA. By Alexander Dallas, M.D., New York, Fellow of the N.Y. Academy of Medicine, and the N.Y. State Medical Association; Consulting Surgeon to Bayonne Hospital, etc., etc. Read before American Medical Association, at its annual meeting in Milwaukee, Wis., June 6th to 9th, 1893.

PERINEO-VAGINAL RESTORATION. By Edward W. Jenks, M.D., LL.D., Professor of Gynecology, Michigan College of Medicine and Surgery; Fellow of the American Gynecological Society; Fellow of the Obstetrical Society of London, etc., etc., Detroit, Mich. Reprinted from *The American Journal of Obstetrics*, Vol. XXVIII., No. 5, 1893. New York: WILLIAM WOOD & Co., publishers, 1893.

LECTURE UPON METALLIC INTERSTITIAL ELECTROLYSIS. By Augustin H. Golet, M.D. Delivered in the Course of Clinical Instruction in Gynecological Electro-Therapeutics at the West Side German Clinic, New York. Reprinted from the *Times and Register*.

THE LIMITS AND REQUIREMENTS OF GYNÆCOLOGY. By Edward W. Jenks, M.D., LL.D., Detroit, Mich., Professor of Gynecology in the Michigan College of Medicine and Surgery; Fellow of the American Gynecological Society, etc. Reprinted from the *Medical Record*, November 11, 1893. New York: Trow Directory Printing & Bookbinding Co., 201-203 East Twelfth Street, 1893.

HYSTERECTOMY BY A NEW METHOD, which is simple, safe, bloodless, and entirely obviates the necessity of either clamp, cautery, or ligature; a major operation converted into a minor one by a simple process of easy dissection. E. H. Pratt, M.D., LL.D., Chicago.

SUPRA-VAGINAL HYSTERECTOMY, without ligation of the cervix, in operation for uterine fibroids. A new method. Cases of chronic ovarian abscess, illustrating the danger of delay in their proper management. Drainage in abdominal surgery, its unnecessary and excessive use. By B. F. Baer, M.D., Professor of Gynecology in the Philadelphia Polyclinic. Reprinted from the *Transactions of the American Gynecological Society*, Vol. XVII., 1892, and the *Philadelphia Polyclinic*, Jan., 1893.

SOME CAUSES AND CHARACTERISTICS OF NEURASTHENIA. By A. D. Rockwell, M.D. Reprinted from the *New York Medical Journal* for November 18, 1893.

REPORT OF TWO YEARS' WORK IN ABDOMINAL SURGERY AT THE KENSINGTON

HOSPITAL FOR WOMEN, PHILADELPHIA. By Charles P. Noble, M.D., Surgeon in Chief. Reprinted from the *International Medical Magazine* for December, 1893.

MATHEWS' MEDICAL QUARTERLY, a journal devoted to Diseases of the Rectum, Gastro-Intestinal Disease, and Rectal and Gastro-Intestinal Surgery. Joseph M. Mathews, M.D., Editor and Proprietor, Professor of Surgery, Clinical Lecturer on Diseases of the Rectum, Kentucky School of Medicine, etc. Henry E. Tuley, M.D., Associate Editor and Manager, Clinical Assistant to the Chairs of Practice and Diseases of Children, Kentucky School of Medicine. Louisville, K.Y.: printed by John P. Morton & Company. Copyrighted by J. M. Mathews, M.D. Published on the first of January, April, July, and October. Subscription Price \$2.00 per year. Single copies, 55 cents.

We have much pleasure in welcoming this excellent quarterly to our exchange list.

SOCIÉTÉ D'EDITIONS SCIENTIFIQUES, Place de l'Ecole-de-Médecin, 4 rue Antoine-Dubois, Paris. Le Massage Vibratoire et Electrique des Muqueuses; sa technique, ses résultats dans le traitement des Maladies du Nez, de la Gorge, des Oreilles et du Larynx, par le Dr. Paul Garnault (de Paris), Docteur en médecine, Docteur ès sciences naturelles (de la Sorbonne), Professeur libre d'Otologie et Laryngologie, Ancien chef des Travaux d'Anatomie et d'Histologie comparées à la Faculté des Sciences de Bordeaux. Avec une préface du Dr. Michael Braun. Un volume in 8° de 150 pages, broché, avec 10 figures dans le texte.—Prix, 4 fr.

The Company which prepares Dr. W. R. Amick's chemical treatment for pulmonary diseases has established a New York depository at 114 Fifth Avenue. This move is necessitated by the constantly increasing demand upon the Cincinnati laboratory made by the physicians in New York and vicinity.

The depository is simply a supply bureau for the profession, obviating the inconvenience and the expenditure of time incidental to procuring the preparations from Cincinnati. The offer to all physicians of sufficient remedies to give a fair trial in each case, without charge, will be continued, and test packages may be obtained from the New York depository.

GRANVILLE FERRY,
ANNAPOLIS CO., N. S.,
26th Jan., 1894.

MESSRS. JOHN LOVELL & SON,
DEAR SIRS:

Please find enclosed P. O. Order for \$2.83, 17 months subscription to THE CANADA MEDICAL RECORD as per bill inclosed. I consider the RECORD of great practical utility to me, and take much pleasure in asking for the reception of its continued issue.

Very truly yours,
JAS. A. COLEMAN.

The Canada Medical Record.

VOL. XXII.

MONTREAL, APRIL, 1894.

No. 7.

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Original Communications.

CASE OF SEVERE PROCIDENTIA UTERI CURED BY VAGINAL HYSTERECTOMY AND PLASTIC OPERATIONS ON THE VAGINA.*

By A. LAPHORN SMITH, B.A., M.D., M.R.C.S. Eng., Surgeon to the Woman's Hospital. Gynecologist to the Montreal Dispensary.

Mrs. C., aged 46, mother of 8 children, consulted me about a year ago at the Montreal Dispensary. Her condition was a pitiable one. The uterus, which had been badly lacerated at her first confinement, was enormously enlarged and at the site of the laceration the everted mucous membrane of the cervical canal was ulcerated and discharging a thick, tenacious secretion. The vagina was also very much thickened. The sound measured a uterine depth of nearly six inches. This poor woman had to work hard and stand on her feet for fourteen hours a day, and when she did sit down, her womb would stick to her clothing, and sometimes bleed freely when it was de-

tached. The womb could be replaced after some little effort at taxis, but it came out again the moment she assumed the erect position. She had suffered so much and so long that she readily accepted my proposition of an operation, provided that it could be performed at her own house, as she had a great dread of a hospital. I visited her home, and found it very small, and with an outlook upon a yard full of privies. Nevertheless, it was decided to make the best of the situation, and accordingly on the 15th May, 1893, assisted by two of my post-graduate pupils, the operation of vaginal hysterectomy was performed. It was somewhat annoying on our arrival to find that the minute instructions to remain in bed for at least one day before the operation had been disregarded, and that the patient was just finishing the scrubbing of the floor of her bedroom, and we had to wait a few minutes till this was finished and she could get into bed.

The external genitals were shaved and scrubbed with soap and water, and afterwards bi-chloride 1 in 1000, as was also the prolapsed uterus and vagina. The cervix, which was badly lacerated, was firmly

* Read before the Medico-Chirurgical Society, Montreal.

grasped in the vulsellum, and firmly held. A circular incision was then rapidly made around the cervix, and the vagina was easily peeled back with the finger all around. Douglas' cul de sac was then opened with the scissors, and torn laterally with the fingers until the broad ligaments were reached on either side, and the peritoneum was sewed to the vagina with catgut sutures, which also completely arrested the bleeding from the cut edges of the vagina. The bladder was then separated from the uterus with the finger of the right hand, until it had reached the finger of the left hand, which had been introduced from the posterior opening and hooked over the broad ligament. The peritoneum was then opened with the scissors in front and torn laterally, as was done with the posterior layer. A few stitches were then made to bring together the anterior edge of the vagina and the peritoneum. This left the uterus held only by the broad ligament on each side, which was then transfixed with Cleveland's ligature carrier; and stout catgut, which had been rendered thoroughly aseptic by soaking, was passed through and tied with three knots. A considerable number of sutures were used in each side, so as not to take too much tissue in each one, and the broad ligament was cut free from the uterus, as the sutures advanced farther and farther up. When the middle of the broad ligament was reached, the fundus was brought out through the anterior opening, which enabled me to tie the upper half of the broad ligament without the slightest difficulty. The uterus was then removed. It was found afterwards to measure nearly six inches in length, the sound entering over five and a-half inches. The stumps of the broad ligament were then brought together with catgut stitches from top to bottom, and Douglas' cul de sac having been first carefully cleaned, the vaginal opening was accurately

closed with a running catgut suture, and the wound was dressed with dry boracic acid and a light piece of boracic gauze. As there was a great redundancy of the vaginal mucous membrane, which was enormously thickened, Hegar's operation, which consists in denuding the triangular surface on the posterior vaginal wall, was then performed. The apex of the triangle extended fully half way up the vagina, and the extremities of the base were located about one inch and a-half below the meatus, so that quite a large area was denuded. This was brought together with three rows of running catgut sutures, care being taken with the last row to bring the cut edges of the vagina accurately together, as also the edges of the vulva. This made a very solid perineal body, and had the advantage of requiring no after-treatment, the catgut being left in until it was absorbed or melted off.

A small hypodermic was allowed that afternoon; the patient's water was drawn with the catheter that evening; the gauze was removed next day, after which the patient received no treatment whatever. She suffered no pain, and it was with the greatest difficulty that she was kept in bed seven whole days, at the end of which time she got up and went about her household duties as if nothing had happened. She did not seem to realize the severity of the operation, thinking it was a matter of course that she would recover, for she constantly begrudged the week she had to stay in bed.

The brilliant success in this case has impressed me with the advantage and safety of thus treating all cases of procidentia, accompanied by enlargement of the uterus. If the uterus were not enlarged I would certainly give the preference to ventro fixation; but where the sound enters over three and a-half inches, the uterus is too heavy for suspending operations, either Alexander's or ventro fixation

to give satisfactory results. I am also particularly in favor of combining repair of the perineum with any operation for displacement of the uterus.

THE PROFESSION, THE PUBLIC AND THE CODE.

An address delivered by invitation before the Third General Meeting of the Pan-American Medical Congress, Washington, Sept. 7, 1893, by ERNEST HART, D.C.L., Hon. Cansa, Editor of the British Medical Journal, London, formerly Dean and Ophthalmic Surgeon, St. Mary's Hospital, London.

Sir Astley Cooper, one of the greatest surgeons and most accomplished gentlemen of the last generation, was in the habit of addressing every candidate for membership of the Royal College of Surgeons of England, of which he was president, somewhat in the following words: "Gentlemen, you are about to enter on a noble and difficult profession; your success in it depends on three things: first, on a good and thorough knowledge of your profession; second, on an industrious discharge of its duties, and third, on the preservation of your moral character. Without the first,—knowledge,—no one can wish you to succeed; without the second,—industry,—you cannot succeed; and without the third, even if you do succeed, success can bring you no happiness." Those words might form a very adequate summary text for guidance of the conduct of all medical men. And it might conceivably be asked whether there is any necessity for a more detailed and elaborate code. Indeed, it practically has been asked, and there are large questions involved in the decision. On the other hand, it has, from time to time, lately, in our country been found necessary to reinforce and strengthen our code by additional declarations, and I think to some extent in yours; the need for a stringent upholding and development of the code has also become a question of the day. I think it is clear that if ever there were such necessity, at no time could it be stronger than at the present moment. For under the stress of the modern social development, under pressure of the modern temptation for advertising and the severity

of competition, in view of the arts of those who make advertisement a business and a profit; in presence of the temptations held out to draw medical men from the ancient paths of modesty and self-effacement, there is now stronger reason than ever to fortify ourselves against those growing and innumerable seductions by a code so exact, so far reaching, that the physician need never be in doubt as to what is his duty in any complication, or in the face of any doubtful case in which he may be inclined to give himself the benefit of the doubt.

But, first of all, I want to elaborate the view that our rules of medical etiquette stand upon a logical and strong basis, and that their strict enforcement is for the benefit of the public, at least as much, if not even more, than for the benefit of the profession. Medical etiquette has been sneered at by shallow cynicism as mere trades unionism. It is, on the contrary, a self-denying code which is made in the interests of pure morality, and for the benefit of the public far more than for the interests of the profession. This allegation of trades unionism is the converse of that of intility, which those who are prone to call themselves of the younger school allege; but not even the youngest of us, as you know, are infallible, and in this matter it is the youngest who are most likely to go wrong. They proclaim themselves liberals. Is it, however, in some cases, the liberalism of Gallio? Let us look at this matter from the largest and most liberal standpoint. Let us begin by comparing our code with the standards of the legal profession.

My distinguished friend, Sir Edward Clark, lately the Solicitor General of England, in writing to me on the subject recently, said the essence of the matter might be summed up in a very few words: "Every lawyer ought to be a gentleman, and ought to do only what is right and honest; if he does not, other men ought to have nothing to do with him." Notice that "if he does not, other men should have nothing to do with him." That position of the bar is strengthened by this, that the etiquette of the bar is absolutely in the hands of the bar circuits and attorney general, and that of the solicitors in the hands of the Incorporated Law Society, so that any solicitor who is guilty of an offence, whether as a lawyer or as a gentleman, can be, and

from time to time, is not only temporarily suspended, but deprived of the right to practice at all. In a case tried last July in England, a solicitor in a certain town had been the proprietor of a house used for an immoral purpose, of which he received the rent. That was considered a stain upon his character as a gentleman, and for that he was suspended from the roll and excluded from practice. So that we have at least the example of the legal profession, who have a code even stricter than ours, in insisting upon a high standard of honorable conduct in the profession.

Legal etiquette prescribes certain technical acts which a lawyer must not do. An eminent American lawyer, whom I had the pleasure of meeting, mentioned to me for example that he may not conduct a "speculative suit;" that is, he may not conduct a suit in which his pay is to depend on the success of the suit,—a palpable restriction on his liberty. Liberty is a blessed word, but compulsion is, under certain circumstances, often a more blessed word. The reason for this rule is that if a lawyer undertakes such a suit he becomes personally and financially interested in the result, and may be tempted not to give the court all the aid which is his duty, or may in the end lose the relations of harmony and respect which are indispensable between the Court and the lawyers, who are officers of the Court and are bound to help Justice to duly balance its scale.

In the same way "champerty" is a legal offence. So, too, no respectable lawyer will give separate advice upon a case which is already in the hands of a colleague. As between advocate and advocate, harmony, courtesy, and the forms of friendship must prevail; and at any time they must in the interest of the client be able to come together and to seize the earliest opportunity of avoiding litigation by compromise or mutual settlement, where it is possible and right. The etiquette of the bar is very strict, and is closely observed.

Legal etiquette is, like medical etiquette, a code of honor and of duty by which the public benefit; and those who depart from it or deride it,—*"legal shysters"* I think they are called in the United States,—are not, any more than medical quacks, those of whom their country or their profession have most reason to be proud.

I will pass at once to the consideration of our code of medical etiquette. I will ask you to consider whether you are of the opinion that it is safe or wise to cast aside the precedents of past experience and to substitute individual judgment for settled rules. If man were a purely abstract and perfectly moral intelligence, no doubt few words would suffice to legislate for his daily needs. Enough to say, "Do unto others as ye would they should do unto you."

But medical men are not pure creatures of perfect and abstract morality any more than other men. They have, indeed, certain advantages from the outset. From the very beginning of their professional life it is impressed upon them by their teachers that their profession is *a mission and not a trade*; a mission involving frequent self-sacrifice and a steadfast regard for interests other than their own. In this they are greatly helped by the force of precedent, by the example of those around them, and of the leaders whom they most respect. But even these are inadequate. Without the aid of the written as of the unwritten law, even the best of men are apt to decide *wrongly in their own favor*, on a doubtful question of ethics, and often in matters and cases where there are settled instructions in the code which would guide them rightly.

Let me read to you a few of the rules of our College of Physicians, which command with us a universal adhesion and respect. I do so only as an example of the conclusions to which many years of observation of the impingement of the forces of modern life on professional duty have led some of our wisest heads. I will refer only to a few as follows:—

"No candidate shall be admitted to examination who refuses to make known, when so required by the president and censors, the nature and composition of any remedy he uses."

"That the practice of medical authors frequently advertising their own works in the non-medical journals, and especially with the addition of laudatory extracts from reviews, is not only derogatory to the authors themselves, but is also injurious to the higher interests of the profession."

Again, "No fellow, member, or licentiate of the college shall officiously, or under color of a benevolent purpose, offer medical aid to, or prescribe for, any patient whom

he knows to be under the care of another doctor."

A further rule prescribes that no physician shall himself assume any special designation of therapeutic method, such as homœopath, electropath, hydropath, or countenance those who do so.

Again, "A physician shall have no interest in a secret medicine, and that he shall always, when called upon by the college, disclose every part of the composition of his medicines."

"If it shall at any time hereafter appear or be made known to the president or censors that any fellow or member of the college has obtained admission into the college, or that any licentiate of the college has obtained the license of the college by fraud, false statement, or imposition, or that any fellow, member or licentiate has been guilty of any great crime or public immorality, *or has acted in any respect in a dishonorable or unprofessional manner*, or has violated any statute, by-law, or regulation of the college, relating to fellows, members or licentiates as the case may be, the president and censors may call the fellow, member, or licentiate so offending before them, and having investigated the case, may admonish or reprimand, or inflict a fine; or if they deem the case of sufficient importance, may report the case to the college, and thereupon a majority of two-thirds may declare such fellow or member or licentiate to be no longer a fellow, member, or licentiate, as the case may be, and his name shall be expunged."

Let us consider now those restrictions which operate to forbid a medical practitioner to consult with "homœopaths," and of which the wisdom has been by some disputed. We do not believe, and we cannot appreciate the medical capacity or fitness to undertake the treatment of disease of those who hold that drugs which given internally will produce certain symptoms of disease are the appropriate remedies for those maladies. For instance, medicines which produce skin reddening for erysipelas, leucorrhine for leucorrhœa; syphiline for syphilis. We do not agree that all chronic maladies arise from syphilis, sycosis or itch, and that medicines act with an intensity proportionate to the infinite diminution of the dose; or that there is any utility in prescribing, in accordance with these

principles, say a decillionth of a grain, when we all know that a dose so small, if taken by every being on the globe once a minute would not finish the grain in a thousand years. Nor again, do we believe that the activity of medicine increases in the ratio of the number of shakes given to the vessel containing it. We hold that we have nothing in common with those who assume to base their practice and theory on this kind of therapeutics. Being well assured that these methods and this theory are absolutely delusive, the negation of reason and the acme of folly, it would be useless, deceptive, and contrary to good faith and the public interest that we should pretend to consult with those who profess them and who take a designation derived from them, and to cover with the respectability of logical science what they are pleased to term their system of treatment. Faith curing, it may be, but in that too we can take no part under false pretences.

But then it is said, What if the physician or surgeon of good standing is only called in by the homœopath to assist in diagnosing the nature, the stage, the complications, or name of the disease? Ought he not to give this help for the patient's sake? The answer is, the physician is a healer; not a reader of riddles nor a conner of conundrums. He is there not to give a name to symptoms or pathological conditions, but to heal the patient; and if he knows that his solution of the riddle is not to be followed by a method of treatment which he considers capable of attaining that result, he would be infamously wrong, and he is always wrong when he gives the cover of his accepted position, of his recognized ability, and of his professional sanction, to what becomes under such circumstances a dangerous farce or a deliberate fraud. The riddle is read, but the patient is none the better.

But it is said, May a regular medical practitioner not be called in to perform a difficult surgical operation? If a surgical operation meant only cutting, sawing, and sewing, it would be a plausible excuse for the surgeon accepting the responsibility of acting as sawbones to a quack. But there is no surgical operation which does not in its preliminary stages, and may not in its various phases and sequelæ, require concomitant medical consideration and treat-

ment, or in which septic, constitutional, or accidental complications may not arise. The surgeon cannot honorably, in the interest of his client, divest himself of the responsibility for the wise and faithful treatment of these as an essential part of his operative interference.

I have used the word quack. It is a word often used now in too restricted a sense. This is Dr. Johnson's definition of a quack: "A boasted pretender to arts which he does not understand; a vain, boasting pretender to physic, one who proclaims his own medical abilities in public places; an artful, tricking practitioner in physics." This strikes at the root of the matter, now as then. Observe, here is no distinction between those who have degrees and those who have not. The great lexicographer makes no distinction; neither do I.

The essential note of the quack is love of advertisement. The public "places" of Dr. Johnson's time were the coffee-houses; they are now the newspapers. Now what are the ways in which the diplomaed quacks adopt the methods and become the imitator, the rival, the accomplice of the undiplomaed? You may know them by their works. They are the gentlemen who put themselves forward to be interviewed, and are the sham Jupiters and willing Mercuries of the newspaper world. They confide to the ubiquitous reporter what is their opinion of the last new bacillus, the last new anti-toxine, or invite reporters to their amphitheatre and hospital ward. All this is only an outcome of the venal desire for advertisement. They are the gentlemen who, if they have the good fortune to attend a prize fighter or a ballet girl or the ruler of a State, are not slow to disclose the secrets of the sick-room, and all for the public good.

Now, in the venerated Oath of Hippocrates, which is the foundation of our code of to-day, the disciple swears to impart the knowledge of his art to others according to the law of medicine, and to share with his colleagues by precept and every other mode of instruction all that he knows. He further binds himself that he will have *no medical secret*, that he will practise his art and pass his life with purity and holiness, that he will abstain from every voluntary act of mischief and corruption, and that

whatever in connection with his professional practice he sees or hears in the life of men which ought not to be spoken of abroad he will not divulge. "While I continue to keep this oath unviolated, may it be granted to me to enjoy life and the practice of the art respected by all men and in all times. But should I violate this oath may the reverse be my lot."

This is the spirit of the modern British code, and I know well it is yours also.

We have dwelt as long as time will allow on the considerations of public utility and professional duty which oppose consultations with homœopaths and their congeners, nor can I stay long to discuss the prohibition of open advertisement. The advertisement in the lay press of medical books intended for the profession, the submitting of technical books to review, the public criticism of the treatment of any disease or person, the thousand and one acts in fact by which the advertising surgeon physician seeks to gain the ear and favor of the public by means of notoriety or self-proclamation, in place of hard honest work, real professional worth, and the judgment of those whose knowledge makes them alone competent to judge. Self-advertisement is the note of the quack. It is as dangerous to the public as hateful to the profession, for it misleads the masses by substituting easily purchased notoriety for merit, and covering by loud talk and bombast and plausible pretences the emptiness of the shallow pretender. It covers also with a pseudo respectability the venal corruption by which whole columns and pages of reading matter of the newspaper are very frequently devoted to quack nostrums and "treatments"—save the mark—often of the most fantastic, false and dangerous character. It destroys the landmarks of honor and reticence, when in successive numbers of the daily and weekly papers are found the lucubrations of these pests of society, and, alongside of them, the interviews, the explanations, and the descriptive narratives put forth for the public good by reputable physicians, *à propos des bottes*, but hardly-veiled self-advertisement.

It is, however, only fair that the physician should have notice of the offence or its penalties, and that this salve which he puts to his conscience should be rubbed off.

Hence the value of "a code." We have seen that the medical man is prohibited from deriving any profit directly or indirectly from any medicine which he uses or recommends, and from tampering, however remotely, with secret medicines. If this were merely an arbitrary rule, if it were not at least as much for the benefit of the public as well as for the practitioner, there might be ground for calling it in question. But it is a rule of the highest public import.

That a healer, whose judgment in prescribing should be clear and unbiased, should possess and profit by a secret remedy is as obvious a source of public peril as it is a heinous offence against professional morality. Every physician has a traditional and immemorial right to expect from, and he is bound to give to, his fellow-practitioners every possible aid and assistance in the treatment of disease and in the healing of the sick. He has received such knowledge from his predecessors; he daily and continually receives it from his colleagues and contemporaries, to whose knowledge and experience, and from the results of whose investigations (openly stated and submitted to critical discussion) he owes the great bulk of his knowledge and of his ability to practise at all.

A new method of treatment, a new drug or a new dogma in medicine is like a new doctrine or a dogma in theology. The one is as much a means of physical salvation as the other is of spiritual salvation. The man who keeps either of them to himself as a profitable secret for his own mean gain is a traitor to his profession; he is also a traitor to humanity, and he is false to his mission. It is fitting that the code should provide for such cases, and that the penal clause should not remain a dead letter.

But it is sometimes suggested that the usefulness of the "secret" drug may be so great as to overpower and outweigh morality, and call for its prescription. I put it to you all: is there any foundation for such an assumption in the whole history of medicine? In the whole history of the past can we recall any example of a secret medicine which had aught but the most insignificant value, or could not easily be replaced? We may take even the most famous, such as the famous remedy of Mr. Stephen, for dissolv-

ing stone in the bladder, for the divulging of which eminent men petitioned Parliament for a grant of £5,000. It was granted; and what do we read of the remedy when divulged? That it consisted of calcined egg-shells or of lime obtained by a filthy and obscene process. Naturally, and like all secret remedies when divulged, it ceased to cure. Hartley—the famous Dr. Hartley—one of those strenuous supporters of the grant, died of stone in the bladder after taking two hundred pounds of the remedy. In our day there is no such thing as a secret remedy in the true, or in any other than the trade meaning of the word. We doctors know the composition of all of them. They are secret only to the gullible public to whom they are to be sold. Pain annihilators, blood-purifiers, vegetable and animal extracts, botanical nostrums, invigorators, electric belts, amulets and chains, Asiatic, African electrical pills and phials, "green, blue and yellow electricity"—there is nothing secret about them. When examined in our private or public laboratories, they are all found to be commonplace in composition; or if they have anything not well worn in use, it is merely the name of some indifferent or trivial matter,—Indian grass or African leaf added, most often, and chiefly for the sake of novelty. These secrets are trade devices, with which we are not concerned. Let us visit those physicians who dabble in them with the severity of the code. I don't think that is asking more than is due to the honor of the professional body and the welfare of the public.

In respect then of secret medicines, at least, the world has up to this date lost nothing by the stern and scornful disapproval with which the medical profession regards these tricky nostrums, and by the punishment with which they visit, and always ought to visit, those who sell the honor of their calling and the free communication of medical knowledge, which is the birthright of mankind, for some mess of commercial pottage.

Finally, I will say a word or two of what is known as the etiquette of consultation. The patient, it is said, and is said cogently, has the right to determine whom he shall consult, and to change his medical adviser if he desires so to do. No one will dispute that. But, like other rights, it is limited

by the legitimate claims of others; and a medical practitioner may justly object if he shall be, without explanation or courtesy, superseded in attending on a case. In such event, moreover, the superseding practitioner is morally and ethically bound to take due care that the same courtesy and respect which he individually would expect to receive be paid to his discarded colleague, not only by himself, but by those who have professionally consulted him.

Every day cases of this kind occur; few days pass without bringing to me some complicated question arising out of them. The pages of our *British Medical Journal* are full of such questions. Very often all I have to do is to say, see Code, page so and so, section so and so, and that decides both the practice and the principle. Probably if that is the case with us, it might occur here also, and not less frequently. Of one case I became cognizant here only the other day. An eminent doctor in a capital city of the United States of America was called in, came and saw a patient severely ill, said he would return; when the family physician returned in the evening, he was told, "But you are not any longer in charge; Dr. So-and-so has charge of the case." He said, "But I don't understand. I was here this morning." "Well, it was the particular wish of—that the consulting physician whom you called shall take charge, and you are not wanted." Exit family doctor.

Once more our College of Physicians explicitly directs that the physician called in to consultation by a brother practitioner shall not express directly to the patient his individual views and the conclusions at which he arrives, but that whatever he has to say shall be said after consultation with the practitioner, and through his mouth; that he shall behave with the utmost courtesy and forbearance to such practitioner, to whom shall be left all explanations and statements of the conclusion resulting from the consultation. Were it otherwise, were consultants authorized to supersede or to snub the family doctor, the public client would be the first to suffer. For anything which creates ill-will or unnecessary friction between consultant and family practitioner tends to limit the range and frequency of consultations. Therefore is it forbidden

to the consultant called in subsequently to assume the sole charge of that patient, however he may be entreated to do so, or under whatever inducement. Were it otherwise, the attending or family physician could not call in a consultant without the fear being before his eyes of losing the charge of his patient. There would arise at once the temptation to limit and restrict consultations, and this would be an impediment in the way of ascertaining the best means of cure by consultation. The strict observance of such rules and of the whole code as to consultations may sometimes be something of a personal trial to the patient, something of a personal loss to the consultant; but it is a rule which is of infinite importance to the public welfare.

The maintenance of a high standard of professional honor, the acceptance, adoption and enforcement of a detailed code of professional etiquette, the agreement by all and the observance by every individual of the whole range of limitations and restrictions, which are set up by that code and by the logical deductions from it,—these things are, I contend, demonstrably as valuable to public welfare as for any professional interests concerned or supposed to be concerned.

I infer from the repeated and enthusiastic plaudits with which you have honored me, that the opinions and conclusions which I have ventured to bring before you have agreed with your sentiments, and are accepted by you sympathetically, and that you consider them opportune and proudly useful.

I have been encouraged by your continuous signs of general and warm approval to speak at greater length than I had intended. But there is yet much more to say. In thanking you now for this most gratifying ratification by the unbroken plaudits of this representative general meeting of the argument which I have ventured to state, it seems to me of great importance to such progress or fair ethical development. I will only add that I shall be most happy to hear privately from anyone who has doubts to solve or arguments to suggest either for or against or in supplement of those which I have developed before you.

Society Proceedings.

AMERICAN GYNÆCOLOGICAL SOCIETY.

NEW YORK, February 1, 1894.

DEAR DOCTOR :

The next meeting of the Society will be held in Washington, on Tuesday, May 29th. According to the resolution adopted at the last meeting, the morning sessions of the first two days will be devoted to the discussion of the following subjects :

1. Extirpation of the Uterus in Disease of the Adnexa.
2. The Management of Face Presentations.
3. Rupture of the Uterus ; Surgical vs. Expectant Treatment.

The afternoon of the third day will be devoted to a special discussion before the Congress, under the direction of the American Gynæcological Society. The following topic has been assigned :

The Conservative Surgery of the Female Pelvic Organs. Referee, Dr. Wm. M. Polk ; co-referee, Dr. Wm. Goodell.

Since there will be time for only twelve or fifteen papers in addition to the above discussions, those gentlemen who desire to contribute are requested to send the titles of their papers to the Secretary on or before April 1st, as he will be compelled to limit the number to the first fifteen which he receives.

The Fellows are reminded of the By-Law : "All papers that may be read before the Society, and accepted for publication, shall become the property of the Society, and their publication shall be under the control of the Council. Such papers may be published in full in medical journals, provided that they are also printed in the Transactions."

There are eleven vacancies in the list of Fellows.

Very truly yours,

HENRY C. COE,
Secretary.

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, May 26, 1893.

DR. JAMES BELL, 2ND VICE-PRESIDENT IN THE CHAIR.

Abdominal section after Confinement.—Dr. ARMSTRONG read a paper on this subject as follows :

Mr. President and Gentlemen—I have recently had to do with three or four cases which in my experience are not common, and my friend Dr. Perrigo has had to do with one of a somewhat similar character. We think that a brief rehearsal of the principal points will be of inter-

est to the Society, and hope that the discussion will be mutually helpful and instructive.

On the 3rd of March last Dr. W. G. Stewart asked me to see with him a lady whom I had myself previously confined three or four times. Her confinements had always been normal, but her recoveries had not always been as satisfactory as could have been desired. She had generally recovered slowly, had usually had a little temperature, and some soreness and tenderness over the uterus and adnexa, but nothing of a serious character.

Dr. Stewart told me that her last confinement had been a normal one in every respect. She did well afterwards, and got up on the tenth day. In brief, she soon afterwards became feverish, complained of some abdominal pain and soreness, and went to bed. During the next four weeks she had a very fluctuating temperature, an occasional chill, frequent sweats, and sufficient abdominal pain to require poultices and opium to relieve. When I saw her six weeks after confinement she had a temperature of 101.5, pulse of 130, small and weak, and an anxious expression. The abdomen was rounded, and for the most part tympanitic. In the left lower abdominal region a distinct but ill-defined mass was easily felt, which was tender on pressure. I advised an exploratory incision, which was consented to. Before opening the abdomen I curetted the uterus, swabbed it out with a solution of permanganate of potassium and packed with iodoform gauze. On opening the abdomen the omentum was found adherent to the uterus and tube of the left side. On carefully detaching the adherent margin, a pus sac was found, the walls being formed anteriorly by the omentum, below by the left tube and ovary, and above by knuckles of intestine. The pus was carefully removed, the tube and ovary tied off, as well as fully one-third of the omentum, which was infiltrated and thickened. The patient made an excellent recovery.

The tube in this case was brightly injected, swollen to probably twice its normal size, but there was not evident any constriction, and it contained no pus.

CASE II.—This case occurred in the practice of Dr. J. Perrigo, and I am indebted to him for the report of it. Mrs. S., referred to me by Dr. Tatley, March 11, 1893. Chief points of history obtainable were : Confined five weeks previously of her second child ; attended by a midwife ; labor normal. On seventh day developed severe rigor, with temperature of 104° and quick pulse. From this date rigors frequent and temperature continuously high. Great pelvic pain on left side, moderate abdominal distension ; occasional vomiting and diarrhoea ; prostration extreme. Examination disclosed a tender abdomen with a large mass in left side of pelvis, a soft patulous "os," with uterus adherent to mass. No fluctuation could be

detected. Patient could bear very little pressure on the mass, and any attempt to move the uterus caused intense pain. Patient removed to private ward of Western Hospital on March 12th, and abdominal section performed that day. All aseptic precautions taken on the part of operator, assistants, nurses and instruments. The field of operation also made aseptic.

Before doing the section, the uterus was curetted and some decomposed placental tissue removed. This was done very gently, but notwithstanding the care taken, the fundus close to the left groin was perforated, so soft were the uterine walls. This was discovered when doing the section. It was quite small, and there was no hemorrhage from it. The uterus was irrigated and picked with iodoform gauze. Upon section the right side of pelvis was found healthy. The contents of the left side formed one mass of inflammatory exudation, all the structures being agglutinated together, adherent to the uterus and to the wall of the pelvis. The lower half of the omentum showed patches of gangrene, and in two small points were attached to coils of intestines, and its left and lower border was adherent to the abdominal wall and to the mass in the pelvis. The omentum was first detached and all diseased portions removed. Great care was required in separating the adhesions from the intestines. No injury to intestines. The tube was enlarged to the size of an average adult's wrist and contained small pockets of pus. The tubal canal was obliterated. Ovary of normal size and gangrenous.

The tissues were so friable and softened that it was with difficulty ligatures could be applied without cutting. The thermo-cautery was freely used, but there was not much hemorrhage. Abdomen flushed and drainage tube used. Before operation, patient's temperature was 103.2-5 and pulse 130. Operation was at 4 p.m., and was an hour and a half in duration. Temperature at 7 o'clock same evening was 99.3-5, pulse 110. Iodoform gauze removed from uterus day after operation.

From this date up to the evening of the seventh day the temperature ranged from 99° to 100°, respiration 18 to 24, pulse 96 to 104. Tube removed on second day, no discharge from it, and incision appeared clean and healthy. On evening of seventh day temperature went up to 102°, pulse 120, respiration 26, and had a restless night, although passing flatus freely. On the morning of the eighth day temperature was normal and pulse 88, but in the evening the temperature went up to 103.1-5, pulse 120, respiration 28. The incision was examined, and appeared healthy, but the evidence of pus being present was so strong that two of the central sutures were removed and about half a pint of pus evacuated. The open-

ing in the incision caused by the removal of the two sutures was sufficiently large to pass the finger in. A large pus-cavity was discovered, which had followed in the tract of the glass drainage tube. The cavity was well irrigated and a large tube inserted, which was cleansed every two hours. From this date the patient convalesced steadily, interrupted at times by her own misconduct.

CASE III.—Presents a history which in some respects is unique. She was attended during her second confinement by Dr. F. R. England. Her confinement was a normal one in every respect, not unduly prolonged, and the child was born alive and well. Dr. England saw her each of the immediately succeeding nine days. Her recovery was all that could be wished. Her temperature and pulse were normal every day. The lochia was present in sufficient quantity and at all times free from odor. Her breasts were always full and the child nursed well. The lacteal secretion was always sufficient for the child. At 4 p.m. on the ninth day after confinement Dr. England paid what he intended to be his last visit. Her temperature and pulse were normal, breasts full, lochia getting scanty and odorless. No abdominal pain or tenderness; it was soft, and bore palpation without the slightest discomfort. She lay in bed with her babe upon her arm, well and happy and hopeful. At 10 o'clock that evening the nurse decided that her patient's bowels needed moving. As the baby had a little looseness the nurse thought that an enema was the proper thing to give. The patient objected strongly to this, on the ground that after her first confinement she had had an enema, and that she suffered very great pain for 48 hours afterwards. Her objection, however, was overcome, and the enema was given. She was almost immediately seized with intense abdominal pain, with great general tenderness, and vomiting. She had a small stool almost immediately, and her bowels did not move afterwards. The vomiting persisted and soon became bilious. Hypodermics of opium were given to relieve the pain. The abdomen became tympanitic, the temperature rose, the pulse became rapid and shabby, the face became drawn and anxious, and it was evident that the patient was suffering from some severe lesion, sufficient to cause a condition of collapse. I saw her with Dr. England during the afternoon of the next day. I thought the history and symptoms pointed to some acute obstruction of the bowels, possibly a volvulus. Her condition was an extremely grave one, and it was easily seen that if anything was to be done more than had already been done, it was of a surgical nature. An exploratory incision was advised, and with that object in view she was removed to a private ward in the Montreal General Hospital.

There, with the assistance of Dr. Shepherd, I opened the abdomen by a median incision.

The peritoneal covering of the intestines was congested. I think I am within the limits when I say that two pints of thin, pale yellow, odorless pus flowed out. After thorough irrigation the uterine appendages and appendix vermiformis were examined without finding any condition that was thought to bear a causative relation to the peritonitis. The tube and ovaries were tied off and sent to Dr. Adami, whose report upon them I will read. This woman was moribund when the operation was begun, and died ten minutes after being removed from the table, or just 24 hours from the giving of the enema and onset of symptoms.

The following is Dr. Adami's report:

PATHOLOGICAL LABORATORY, MCGILL UNIVERSITY,

May 17th, 1893.

The Fallopian tubes are rather more capacious than normal; their epithelium is healthy; the peritoneal surface layers are congested and thickened.

The ovaries present no suppurative foci; all that can be said of them is that they are more fibroid than they ought to be—possess large tortuous vessels and thickened capsules. Evidently, therefore, the peritonitis has not started from the tubes or ovaries in this case.

With kind regards, yours sincerely,

J. GEORGE ADAMI.

Careful search was made for volvulus and hernia, but nothing which could be taken for a cause was found. Thinking that perhaps a small perforation existed along the sigmoid or colon, I asked one of the house physicians to inject water into the rectum. It entered freely, filled the colon, and passed through into the ilium, but none escaped through into the peritoneal cavity. I was obliged to close the abdomen without determining the cause of the pathological condition present. No autopsy could be obtained. From the symptoms of obstruction which were present, and the history of severe pains following the administration of an enema after a previous confinement, I am inclined to think that in some way a volvulus of the sigmoid was produced by the enema which had untwisted, but not before some pyogenic micro-organisms had escaped into the peritoneal cavity. What it was—whether the bacillus coli or one of the proteus group, described by Hauser in 1885, or some other, I cannot say, as unfortunately none of the pus was saved for bacteriological examination.

Dr. Flexner, Associate in Pathology in the Johns Hopkins Hospital, describes in the April number of the *Johns Hopkins Bulletin* a case of peritonitis occurring in a patient, the

subject of chronic disease, thought to be due to the action of the proteus vulgaris. In the same paper Dr. Flexner says that "Foa and Bonome found in the blood and organs of a man dead of supposed hæmorrhagic infarction of the intestine and mesentery and thrombosis of the mesenteric vein, a bacillus which they identified as the proteus vulgaris."

CASE IV.—A patient of my own was attended for me in my absence by Dr. Spendlove in June, 1892. It was her third confinement; labor easy and rapid; child living and healthy; recovery apparently perfect; no history of any tubal or ovarian trouble. Two months after confinement, while in apparent health and nursing the child, she was suddenly seized with a severe rigor, rapid pulse, and a temperature of 104, followed by pain and tenderness in the lower abdominal region. She recovered in a week, so far that the pain and tenderness disappeared and pulse and temperature became normal. The lacteal secretion was sufficient for the child, and she resumed her household duties. In fifteen days she had a similar attack, followed in ten days by another; apparently good recovery, only to suffer another recurrence ten days afterwards. The third attack was the most severe of all. In addition to the rigor, high temperature and pain and tenderness, there developed a large, soft, tender mass on each side of the uterus, easily felt by bi-manual palpation. I now decided to open the abdomen. On doing so I found a large tubo-ovarian abscess on each side. It was treated in the usual way, and a rapid and perfect recovery followed. This patient is now in better health than she has been for years.

I might add a fifth case operated on in the General Hospital some two years ago, followed by recovery.

Case III must be considered separately from the rest. The symptoms were those of obstruction. Dr. Adami, in his report upon the tubes and ovaries, says they cannot be called diseased, and that we must look elsewhere for a cause of the peritonitis. The cause was apparently a temporary condition, which had ceased to exist at the time of operation. Remembering the symptoms that followed the administration of an enema after the first confinement, and the apparently causative relation of enema and symptoms at the onset of her last illness, I think that probably, as I said before, a volvulus was produced which untwisted before we inspected that region, or perhaps it was untwisted while we were looking at the condition of the uterine appendages on the left side.

The two lessons to be learned from the other four cases are, first, the necessity for greater caution against sepsis when attending confinements or miscarriages. The technique

of a case of midwifery should more closely resemble that for a modern surgical operation. The greatest care should be taken to render the hands of the accoucheur aseptic. His coat and underwear should be above suspicion. The patient's person and clothing and bed should be made as clean as circumstances will permit. A napkin or towel wrung out of a hot solution of corrosive sublimate 1 in 2000 should be used, instead of the old dry napkin, to support the perinæum. The parts should afterwards be frequently washed by the nurse, who should be impressed with the necessity of having clean hands herself.

Secondly, these cases teach us that when septic infection occurs, great care should be taken to discriminate between infection from the vagina, torn perinæum, uterine cavity, or torn cervix, and infection extending up and involving the Fallopian tubes. The treatment should aim to meet efficiently the pathological condition present. The experience gained from these five cases demonstrates the utility of proper surgical treatment in properly selected cases. No amount of vaginal douching or curetting and irrigating of a septic uterus will save a woman suffering from ruptured pus tubes, with intra-peritoneal inflammation and abscess.

But the history of these cases does show that surgical treatment may not only save their lives, but restore them to perfect health. Thoroughly cleanse and render aseptic the vagina and uterine cavity, and then if there is pus in the abdomen, open that cavity, remove the pus and diseased tubes and infected omentum, and make it also as aseptic as possible.

Dr. ENGLAND, referring to Case No. 3 of the series just reported, had nothing more to add to what Dr. Armstrong had so well expressed. The woman had a very satisfactory puerperal period. The giving of the enema was, or seemed to be, the beginning of her pain, which persisted till death. He saw her the same night as the enema had been given, and even a hypodermic of morphia could not relieve pain.

Dr. LAPHORN SMITH dwelt upon the necessity of greater care being exercised by the accoucheur in cleansing the hands, and for this purpose he knew of nothing better than permanganate of potash and oxalic acid.

Relative to Case No. 3, he did not agree with Dr. Armstrong in thinking that a volvulus or obstruction was the cause of the trouble. Two pints of pus in the peritoneal cavity is more than could be manufactured in such a short time, and in his opinion it must have been locked up somewhere in the form of an abscess, and during the administration of the enema it suddenly burst and flooded the cavity.

Dr. J. C. CAMERON said that Dr. Armstrong's series of cases seem to confirm the belief that abdominal section is sometimes useful in local

peritonitis, and that it is always hopeless in general septic peritonitis.

With reference to curetting, he said that this should be done before the peritonitis was set up. Where there is a suspicion of any portion of the placental tissue being left in the uterus, we should not treat a rise of temperature with douching. Douching is not sufficient to remove any adherent membranes or placenta; nothing but the curette is sufficient in such cases. Here in Case 2, if the curette had been early used, the necessity for an abdominal section would have been spared. Interfere early and interfere thoroughly was his advice in all such cases.

He was not in accord with Dr. Smith in his absolute faith in permanganate of potash and oxalic acid as disinfectants. He thought it a dangerous doctrine to set forth that the thorough use of those agents on the hands does away with the necessity of any or all other precautions. In the abstract it may be correct to say that thorough disinfection makes previous occupation of no importance; but, in practice, it will be found unjust and unwise to counsel men that they may leave the post-mortem room and confine a woman with impunity, provided they wash their hands in permanganate and oxalic acid. It will be found that disinfection comprises much more than the cleansing of the fingers.

Dr. JAMES BELL thoroughly agreed with Dr. Cameron's remarks regarding the insufficiency of manual disinfection. The truth of this is well seen in the hospital, where students, ever apt to seize upon the most prominent part of the technique, often confine their disinfection to washing the hands, etc., and neglecting other and very essential precautions.

Dr. ARMSTRONG, in reply, said that relative to the Dr. Smith belief, that the hands are the only source of infection in midwifery, it has lately fallen to his lot to see three cases, two of them fatal, occurring in the practice of accomplished, faithful, truthful men, who asserted that the children were born before they reached the house; that they never touched the vulva, never made a vaginal examination. Granting that the hands are the most important part, if you have a dirty field of operation, dirty vulva, if you have fecal matter coming down, no matter how clean your hands are, you carry over the germs that are on that surface; you must have everything clean.

In regard to Case 3, and Dr. Smith's remarks about the two pints of pus, he said that he had no knowledge of any kind of peritonitis that could be present for nine days and give no symptoms; that, at the operation, puzzled with the obscurity of the case, the incision was enlarged, and a most thorough examination of the cavity and its contents made, with a view to find an abscess or some such explanation for

the quantity of the pus, but without success. In the face of these facts, unlikely as it appeared, the conclusion expressed was the only one left them.

In regard to operating in peritonitis, he agreed with Dr. Cameron; still, there is no other hope for these patients; and while there is even the shadow of a chance by operating, he felt it is hard to refuse to undertake such a step.

Stated Meeting, 70th Oct., 1893.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Drs. H. B. Carmichael, C. F. Martin, P. J. Hayes and T. P. Shaw were elected as ordinary members.

Enucleation of Tumor of the Thyroid Gland.—Dr. SHEPHERD related two cases of this operation.

The first was performed on 5th July, 1893, by cutting through the capsule after ligating the thyroid arteries. The tumor was readily shelled out, and the hæmorrhage was trifling. The growth had been rapid and had caused increasing difficulty of breathing. In the second case, operated on 29th September, 1893, the growth was larger, and extended below the clavicle, but was easily shelled out. Attached to it were a number of vessels spreading out like the branches of a tree, but none of them required tying. In the dissecting room he had recently seen a similar tumor, which he had been able easily to shell out. After this operation there was no danger of any œdema, and enucleation was likely to be the operation of the future.

The PRESIDENT remarked that in both Dr. Shepherd's cases the growths were cystic. He had seen Kraské enucleate an adenoid goitre extending below the clavicle. It had shelled out quite easily.

Fibroid Tumor of the Uterus.—Dr. LAPHORN SMITH showed a specimen which he had removed from an unmarried lady aged 34 years. The bowels had always been regular—an exceptional circumstance in such cases. A few weeks ago her legs became swollen. On examination, a diffuse fibroid tumor was found occupying the posterior wall of the uterus. The transverse diameter of uterine cavity was increased. Patient was anæmic. Abdominal hysterectomy was performed on 2nd October, 1893, the uterus being transfixed at the level of the internal os. No complications. Highest temperature was $100\frac{1}{2}^{\circ}$ in mouth. The stump was dressed with boracic acid and was free from all unpleasant odor. Peritoneum, linea alba and skin were sutured separately. Convalescence was good.

Small Fibroid Tumors of the Uterus and Broad Ligaments.—Dr. WM. GARDNER exhibited this specimen removed from Mr. L., aged 42 married 13 years, sent to him by Dr. W.

Grant Stewart. The operation was exceptionally difficult, owing to adhesion of the entire omentum to the anterior abdominal wall. Two nodular myomata were enucleated from the right broad ligament, the ovaries and tubes removed, and the uterus amputated by the flap method after ligating the uterine arteries. There was considerable oozing. A glass drain was introduced. Four hours later hæmorrhage commenced, but was checked by pouring a sterile solution of perchloride of iron into the tube. The tube was removed in 48 hours, and recovery was steady. The growths in the broad ligament appeared to be distinct from the uterus.

Grape Tuberculosis of the Peritoneum.—Dr. ADAMI exhibited a specimen received from Dr. Gardner.

Dr. Gardner had recently performed an exploratory laparotomy upon a young woman, where, upon opening the abdomen, the intestines, omentum and the parietal peritoneum were found to be studded with nodules varying in size from a small pea to that of a grape. There must have been more than a thousand of these new growths, which were white, firm and globular. No large conglomerate growth could be found in connection with the ovaries, uterus, intestines or other organs. In removing a few of the growths from the mesentery they were easily separated from the surrounding tissue, and upon microscopic examination exhibited the characteristics of tubercles. The masses were subserous, and were composed of tubercles of a peculiarly chronic type, many showing central necrosis, although the caseating masses did not coalesce, while all were surrounded with well formed layers of fibrous tissues. There were numerous giant cells, and further study demonstrated the presence of numerous tubercle bacilli. Dr. Adami described this as "grape tuberculosis" from its similarity to the "disease," or tuberculosis, of cattle. This is a chronic form of tuberculosis. He exhibited the liver of a calf just received by him, which upon its surface showed similar grape-like masses of tubercles.

Dr. GARDNER stated that the patient had been sent to him by Dr. Ewing of Hawkesbury. The nodular masses and thickened omentum could be made out by palpation. After watching the case for three weeks tuberculosis was suspected, there being physical signs in the lungs and a rise of one degree or more in the evening temperature. Operation was performed, as experience had taught that peritoneal tuberculosis was a remediable condition.

Dr. SHEPHERD referred to a man under his care three or four years ago, where the temperature reached 101° daily for several weeks, and hardness could be felt through the abdominal walls. On operation he had found a condition almost identical with the specimen shown. Some of the masses were examined

microscopically, and pronounced tuberculous. From the day of operation, he commenced to improve. The temperature soon fell, and a year later he had gained twenty pounds in weight.

Dr. MILLS thought the benefit was explainable through the effect of the operation upon the nervous system, thus indirectly changing the metabolism of the whole organism.

Dr. SMITH thought the improvement might be due to the irritation caused by the entrance of air.

Dr. LAFLEUR was surprised to find this subject regarded as new. Dr. Osler in his monograph on tuberculous peritonitis states that though miliary tuberculosis does not get well, chronic forms always improve. Ordinary puncture does not have the same effect as incision. He considered that spontaneous healing of peritoneal tuberculosis also took place.

Dr. ADAMI considered that the "shock" which follows upon abdominal incision suffices to explain the retrogression of the tubercles. It is well known that exposure of the peritoneum leads to an inflammatory condition of the same, to dilatation of the vessels and increased blood supply. As Professor Roy had recently shown in "shock" produced by various means, the specific gravity of the blood rises rapidly, and is accompanied by increased exudation into the peritoneal cavity and dilatation of the mesentery and intestinal vessels. He held that with this inflammatory or sub-inflammatory condition there was increased nutrition of the tubercular areas, improved state of the cells, and thereby arrested advance of the tubercular process, and cicatricial tissue developed so as to encapsule the tubercles. In the chronic cases such as that exhibited by him, there was already a tendency to this, so that slightly increased vascularity and improved nutrition would turn the scale in favor of the organism and against the micro-organism.

Dr. F. W. CAMPBELL thought that the system could be permanently influenced by shock, and gave illustrations in support of this view.

Ovarian Dermoid.—Dr. ADAMI exhibited a large dermoid which had been sent to him by Dr. W. Gardner. The tumor measured six inches in diameter; the walls outside showed membranous adhesions. Upon opening, the cyst was found to be filled with thick fluid with fatty particles floating in it; and when this had escaped, the cavity was seen to contain a large amount of fatty material and debris, and a relatively very large quantity of loose hair tending to be arranged in balls. The walls were irregularly thickened, and in them was a large bone of irregular shape, consisting of a main portion $2\frac{1}{4}$ in. in length and $\frac{1}{2}$ in. in thickness. From this at one extremity projected two wings, of which the larger was 3 in.

long, while the smaller bore a clump of three well developed teeth projecting into the cyst. At the other extremity was given off a line of three small flattened bony plates united together by fibrous tissue, in all $2\frac{1}{8}$ in. long. The main mass of bone was hollow, containing towards its outer surface a subsidiary cyst also bearing hair. Into it projected from the bony floor a cystic glandular mass. This large bony mass could easily be felt upon abdominal palpation before the operation. While small bony developments in ovarian dermoids are not uncommon, it is extremely rare to obtain so large a mass as the one here described.

Dr. WM. GARDNER stated that clinically the only point of interest was that the portion of the pedicle was not extreme enough to interfere with the circulation.

Fibroid Tumor from the sheath of the Femoral Artery, with secondary growth within the Femur.—Dr. ADAMI. This tumor had been removed by Dr. Roddick, who, finding upon his first attempt at simple removal that it was intimately connected with the sheath of the lower end of the femoral artery, determined to amputate the leg of the patient, an elderly lady, and cut across the femur at the junction of the upper and middle thirds of the bone. The tumor reached Dr. Adami in bad condition, having accidentally been laid aside. Its structure was that of a slow growing spindle-celled sarcoma, which in parts was more truly fibromatous, and which throughout showed a tendency to a fasciate arrangement of the constituent cells. No secondary growth had been made out anywhere, but upon making a longitudinal section of the removed femur there was discovered a white mass, the size of a Barcelona nut, lying somewhat loosely in the medulla of what corresponded to the lower part of the middle third of the bone, and this upon microscopic examination was seen to be of sarcomatous nature, being formed of spindle cells, of typical form towards the periphery, but more internally possessing nuclei which might at first sight be mistaken for those of a myoma, their length being remarkable.

Perforation of the femoral artery and vein in Hunter's canal by a bullet wound.—Dr. BELL. On Sept. 16th, 1893, the patient, a boy, was shot in the thigh by a 16-calibre ball. On bandaging, the bleeding ceased, but the pain in the thigh prevented walking. A few days later he entered hospital, when a fusiform swelling in the region of Hunter's canal was observed. There was no diffuse pulsation, but a very loud bruit on auscultation. One and a half inches of both vessels were removed. On the fifth day pulsation could be felt in the posterior tibial artery.

Appendicitis.—Dr. JAMES BELL exhibited specimens from the following seven cases:

1. Recurrent case. Operation three weeks

after the second attack. Perforation with local abscess.

2. Operation 18 hours after the onset. Appendix greatly dilated and quite gangrenous.

3. Operation 48 hours after onset. Widespread abdominal pain. The appendix looked normal externally, but was full of grumous bloody fluid.

The adjoining lymph glands were enlarged and soft, and the peritoneum cedematous. It appeared to be a case of early catarrhal appendicitis with severe lymphangitis.

4. Operation 50 hours after onset. Appendix gangrenous.

5. Operation 41 hours after onset. Appendix perforated and gangrenous.

6. Operation one week after onset. Appendix perforated. The patient was in a septic condition, and subsequently died.

7. Operation two weeks after onset. Appendix perforated with local abscess. The patient died apparently from toxæmia rather than septicæmia.

Of the gangrenous cases none had died, and of the catarrhal cases, two died; so that the milder forms appeared to be by no means so far from danger as is generally thought. The marked symptoms in gangrenous cases lead to early operation while the milder forms are neglected.

Dr. SHEPHERD referred to a case where the appendix was apparently only a little thickened. Dr. Johnston had found it filled with pus and blood. He had been unfortunate with his gangrenous cases three having died unrelieved by the operation. Operation may be performed too early, before there is a line of demarcation formed.

Enlarged Glands pressing upon the trachea from a case of Hodgkin's disease.—Dr. FINLEY exhibited the specimens obtained at an autopsy upon a man aged 27, and gave an account of the case. (The patient had been previously brought before the Society in Oct., 1890, by the late Dr. R. L. MacDonnell, and the case had been published in the *International Clinics* for Oct., 1891.)

The disease had lasted 7 years. The earliest symptom was the occurrence of urgent attacks of dyspnoea. After an interval of two years these attacks recurred, and enlargement of the cervical lymph glands was noted. The spleen was then enlarged. The removal of some glands from behind the sternum by Dr. Shepherd gave relief. In 1891 there was stridor and dyspnoea, with enlargement of the cervical and axillary lymph glands, the size of which varied considerably from time to time. In Dec., 1892, the inguinal glands enlarged. Six months before death the man became very weak and anæmic, though temporary improvement followed the administration of Fowler's solution. In June, 1892, the blood count gave

3,317,000 red cells, with white cells 150, mostly polymuclear. In Dec., 1892, the red cells were 2,571,000, no leucocytosis. In June, 1893, there was effusion into left pleura, and the patient died in orthopnoea. At the autopsy, body was emaciated, and showed (arsenical?) pigmentation of skin. The trachea surrounded by a cluster of enlarged glands as big as a foetal head. Lumen of trachea compressed to a mere chink, and mucosa eroded. Some of the glands presented softened centres. Retro-peritoneal and pelvic glands enlarged to masses of considerable size. Spleen three times normal size. Growth infiltrated lower lobe of left lung. Six secondary nodules in right lung. Bone marrow of ribs and sternum grayish red. The seven years duration of the case was remarkable. In 50 cases tabulated by Gowers, only one exceeded 5 years. Osler gives the duration as from 3 to 4 months to as many years. Possibly the continued use of arsenic had lengthened life.

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Stated Meeting Nov. 3rd, 1893.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Drs. G. A. Berwick and J. T. Reid were elected members of the Society.

Removal of Gasserian Ganglion for Facial Neuralgia.—Dr. JAMES BELL exhibited a woman upon whom he had performed this operation for intractable facial neuralgia. Krause's operation was performed, an incision being made from the external angular process to point in front of the tragus of the ear. The zygoma was removed with bone forceps. In trephining the skull, the middle meningeal artery was seized. It ran in a foramen, and therefore some bone had to be chipped away. The dura was separated from the bone down to the petrous region, the brain being held away with the finger. The second and third branches of the fifth nerve were divided at the foramina, and reflected backward with the Gasserian ganglion till the trunk of the nerve could be cut and the ganglion and attached nerves dragged away with the forceps. To familiarize himself with the operation he had practised it on the cadaver. The risks of operation were: (1) wounding the adjacent vessels, and (2) trophic changes in the eye-ball. To avoid the latter the eyelids were sutured for a few days. Except for loss of power of the temporal muscle, paralysis of one side of the face and slight giddiness lasting a few weeks, there were no bad symptoms, and she had been free of pain since the operation. Previously the nerve had been stretched without any relief being obtained. In the operation known as "Rose's," the foramen ovale is approached from the base of the skull by an incision over the parotid region. This operation is more difficult. Five

cases are reported by Mr. Rose and six are reported of Krause's operation—which should really be called Hartley's operation, Hartley of New York being the first to perform it. It was too early to judge fully of the results, but cases were reported free of pain after 22 months where stretching and external neurotomy had failed.

Discussion—Dr. STEWART had seen the patient, and regarded medical treatment as useless. The pain was intense, and had been worse since the stretching. It was hard to say whether the cure would be permanent.

Dr. MILLS thought that from the important nerves involved the dizziness noted might be owing to the operation.

Dr. LAPHORN SMITH had found benefit result from constitutional treatment by iron and tonics in c. es. of tic.

Dr. BELL, in reply to Dr. Mills, said that dizziness is common in persons confined to bed after any operation.

Sub-diaphragmatic Abscess—Dr. ADAMI related a case of this nature due to suppuration around a cancer of the lower part of the oesophagus, as follows :

It is not a little noticeable how silent are even the best and most modern text-books upon the subject of sub-diaphragmatic abscess, with a silence that is out of proportion to its diagnostic and clinical interest, and, it may be added, to its relative frequency. Doubtless the fact that the subject cannot be treated under the heading of any one special organ leads to its being neglected in well-ordered text-books, so that information has still to be gathered from scattered papers. Thus it happens that although I am acquainted with a fair number of cases in which the original disturbance has originated in connection with the liver, kidney, spleen or stomach, I have been able to find none presenting the anatomical features of the case here recorded, though such must exist.*

The patient, L. F., sixty-five years o'd, was received into the General Hospital, under Dr. Molson, upon October 3rd, in a state of semi-collapse. All that could be ascertained as to his previous history was that for the past four or five days he had been suffering from pain in the epigastrium, thirst, restlessness and pains in the joints. He died within twenty-four hours, before time had been allowed for a full diagnosis. The pulse was almost imperceptible, there was a large area of cardiac dullness, the heart sounds could scarcely be heard, while no murmur could be detected. Over the region of the liver in front there was acute pain upon pressure. The respiratory sounds were tubular.

* Petri, Dissertation, Berlin, 1868, quotes a case of sub-diaphragmatic perforation of the oesophagus following upon cancer, but of the extent of the succeeding inflammation I cannot clearly learn, not having the original by me.

A provisional diagnosis was made of pericarditis.

At the autopsy performed upon October 5th, the following were the more important conditions observed. The skin of the whole body had a slight yellowish tinge. The pleural cavities contained about eight ounces of clear serum. The lungs were very oedematous, showed some slight signs of anthracosis, and in either apex were found evidences of an old and cicatrized tuberculous condition. The pericardial cavity was enormously distended, the fluid was milky with numerous flocculi floating therein. The heart was covered over with a layer of inflammatory lymph; and its cavities were filled with well-formed clots, firm and rather pale, together with some fluid blood. The lower and inner half of the parietal pericardium was thickened, and upon cutting into it, down upon the diaphragm an abscess cavity was exposed lying between diaphragm and pericardium. This was of irregular shape, and contained a quantity of thick, creamy pus. Upon inspecting the abdomen, a large abscess was found beneath the diaphragm, having in its centre the abdominal end of the oesophagus and the cardiac end of the stomach. This extended to the left edge and under the surface of the left lobe of the liver on the one side; on the other it almost touched the splenic flexure of the colon and the surface of the spleen. It was filled with a thinner greyish pus, and communicated through the diaphragm with the supra-diaphragmatic abscess. The cardiac orifice of the stomach was discovered to be greatly stenosed and ulcerated. Further inspection revealed that there was a ring of cancerous growth implicating the gastric mucous membrane, and forming a ring varying in breadth from 2 to 3 cm. around the cardiac orifice; the growth extended a short distance up the oesophagus. Microscopical examination showed the cancer to be primarily gastric—that it is to say, it was of the nature of a colunar-celled carcinoma. It infiltrated all the coats of the stomach.

No actual perforation of the stomach or oesophagus was to be discovered.

It would seem evident that the history of the case was one primarily of cancer of the cardiac orifice of the stomach leading to stenosis; ulceration of the cancer, and extension of the septic process through to the serous surface of the organ—or, it may have been, perforation above the stenosed area by a fish bone or other fine spicule, the passage closing behind the foreign body; suppuration around the termination of the oesophagus leading to a sub-diaphragmatic abscess; extension of the process through the diaphragm; inflammation of some little standing of the outer layers of the parietal pericardium; extension through the pericardium; purulent pericarditis; death.

Judging from the condition of the sub-dia-

phragmatic abscess, and the want of the well defined boundary, this had of late been extending rapidly.

There is a possible alternative that the supra-diaphragmatic abscess with its more creamy pus was of the earlier origin, but this I think is improbable. The presence of the gastro-oesophageal carcinoma in such characteristic relationship to the surrounding sub-diaphragmatic abscess renders the former the more likely course of events.

Papillomatous Cyst of the Ovary—Ovario Hysterectomy—Dr. LAPHORN SMITH showed this specimen which he had removed from Mrs. E., aged 30. Enlargement of the abdomen was first noticed by her husband on their wedding day, and wrongly attributed to pregnancy. Examination showed that the uterus was not enlarged, but that the whole of the pelvis was occupied by a large cystic tumor. After a few weeks preparatory treatment, laparotomy was performed on 4th Oct., 1893. The lower part of the cyst was adherent to the Douglas fossa. The uterus was removed with the tumor at the level of the internal os. The abdomen was flushed with water at 100° F., and drainage tube inserted. The patient made an excellent recovery. The tumor is a multilocular cyst of the left ovary, the inner surface covered with warty growths. Both ovaries and uterus closely adherent and the line of separation is difficult to determine. Fallopian tubes were free.

Dr. WYATT JOHNSTON showed the inferior maxilla of a drowned woman pronounced by coroner's jury to be a girl of 18, missing for some months, and was claimed as identified by an article of jewellery. The wisdom teeth in this case were fully developed, and corresponded with those of persons thirty years of age; a malformation of the bicuspid described in the missing girl was also present in the specimen, but it was in all probability a case of mistaken identity in spite of the coincidence of the jewellery and malformation of the teeth.

Saline enemata in post-partum hemorrhage—Dr. JOHN A. HUTCHINSON related the case as follows:

I wish here to refer to a case of severe post-partum hæmorrhage occurring in practice a short time ago, which illustrates the beneficial effects of saline enemata:

I was called late one night to see Mrs. S., who had an abortion at the second month, and had bled profusely for several hours. On examination she was found to be much collapsed, and presented the appearance of one near death from loss of blood. She was very blanched and anæmic, with a pulse of 140, weak and thready, sighing respiration and partially unconscious. The bleeding had stopped, but there was danger of death unless something was done to aid the circulation.

It seemed a favorable case for transfusion, and I spoke to Dr. Roddick with a view to having this done. He advised, before doing this, to try saline enemata. This I did, and used the same solution as is now used for transfusion into a vein or artery, that is,

Sodium chloride grs. xcii.

Liquor soda mxx

Aqua O ii

Half of this solution was injected and well retained, and in two hours after the other pint was given and retained.

The temperature of the solution was 98° F.

The hips were raised to allow the fluid to gravitate up the bowels.

A marked improvement resulted, both in pulse and respiration. A slight rigor ensued, followed by rise of temperature. Since that time the patient has made a good recovery.

The advantage of this treatment over transfusion is very apparent, in the fact that it can be done at once, as the solution is easily obtained, and also easily administered, while there is some danger in transfusion, particularly as air may get into the vein or artery. Again, it requires some training in manipulation that the every day practitioner may not have, and the necessary instruments are not always at hand when wanted.

Since this case occurred, I find in the *British Med. Journal* of the 14th of October, that Warman reports the treating of 28 cases of post-partum hæmorrhage in this way. In his cases he only uses a teaspoonful of salt to a quart of water, and at the temperature of the room, which he thinks causes it to have a more rapid effect than at a higher temperature.

He also states that the saline solution has marked hæmostatic properties, and recommends its use in all hæmorrhages except those from intestines.

I have reported this case because I think that in emergencies of this kind, this treatment has not received the attention its importance demands. Most cases are treated by stimulants and nourishment, if transfusion is not done; but by the absorption of this saline in the bowel, the blood vessels are quickly supplied with a solution that certainly takes the place of the lost blood at a critical time for the patient.

Hibernation and allied states in Animals and Man—Dr. MILLS read a paper on the subject, published in the transactions of the Royal Society of Canada, 1892, Section IV, page 49.

Besides studying cold-blooded animals and bats, Dr. Mills had made observations extending over a period of five years on woodchucks, one of which presented a drowsy or torpid condition from November to April, independently of conditions of food and warmth. Another woodchuck did not hibernate at all, even when kept in the cold. Three remarkable in-

stances of profound lethargy in the human subject were also studied under the direction of Dr. Mills. One of these, known as Sleepy Joe, aged 60, would sleep for weeks at a time, waking only to take food and void his excretions. Another case, that of John T., of a neurotic family, had been the subject of melancholia. For the past twenty years he remained in a somnolent condition from September to June in each year. His temperature was observed to be 96° on one occasion. Once he was aroused by application of an electric battery, but subsequently this failed to disturb him. The third case was studied with Dr. Clark, of Kingston Asylum. The patient, a woman of over 60, was lethargic for nearly 20 years. Appetite was usually good. The urine contained one-third the normal amount of phosphates. An autopsy was obtained, the brain being found healthy. The lungs contained tubercles.

The discussion upon this paper was postponed till the next meeting.

Stated Meeting, 17th Nov., 1893.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR

Dr. George Villeneuve and Dr. R. Tait Mackenzie were elected members.

Pyloroplasty—Dr. SHEPHERD exhibited a patient from the Montreal General Hospital, upon whom he had performed pyloroplasty in July last. A diagnosis of dilatation of the stomach with stenosis of the pylorus had been made by Dr. Wilkins. There was a history of stomach trouble for 15 years, consisting in recurrent attacks of gastritis lasting from two weeks to two months, with occasional vomiting of blood; between these attacks he enjoyed fair health. Three months before entering hospital he had an attack of gastritis, which was not recovered from as usual, the stomach having apparently lost the power of passing solid food on to the duodenum, so that liquid food only could be employed; after a time this was also rejected, vomiting occurring in enormous quantities at intervals of two to three days. On entering hospital he weighed only 119 pounds. Dr. Shepherd performed the Heinicke-Mikulicz operation of resecting the scar tissue about the duodenum and bringing together the healthy tissues of the duodenum and stomach, rather than the Italian or Lorette operation of forcibly dilating the pyloric orifice. At the operation the pylorus was involved in a huge fibrous mass, looking like scirrhus, the orifice being too much constricted to admit the point of the little finger. For six days after the operation the man was fed by the bowel; afterwards, fluid nourishment was allowed by the mouth, and a few days later he was allowed ordinary diet, but cautioned

against excess. His weight was now 179 lbs., or a gain of 60 lbs. from the time of entering hospital. The pylorus appeared to be acting normally. No vomiting had occurred since the operation. The highest temperature observed was 99.3-5. Before operation the stomach was repeatedly washed out with boracic lotion, as salicylic lotion was considered dangerous.

Discussion—Dr. WILKINS said that while under his care the patient had not improved on a peptonized diet. He had satisfied himself that the disease was non-malignant and was due simply to the cicatrization of an ulcer. This diagnosis has been confirmed by the increase in weight since the operation. He congratulated Dr. Shepherd on the result.

Dr. WESLEY MILLS said the persistence of vomiting showed that anti-peristalsis of the stomach took place. The history did not clearly show whether the increase in weight was due to increased ingestion of food or improved powers of absorption.

Carcinoma of the sudoriparous glands—Dr. C. F. MARTIN showed this specimen:

The patient from whom the above growth was removed was a contractor, 45 years of age, having a history of previous good health, with the exception of occasional attacks of dyspepsia. No history of syphilis, nor was there any family history of cancer or other tumor.

Early in 1890, the patient observed, for the first time, a small lump in the left groin, in size equal to a bean, perfectly painless, which he attributed to a blow received in this region some months previously.

The growth was regarded as some affection of the sebaceous glands, and no treatment other than the application of iodine was adopted for over a year, there being no appreciable alteration in the character of the tumor during that time.

Towards the end of 1892 it gradually increased in size, and was now for the first time painful, the patient at times suffering intensely. The skin too showed signs of irritation, and became adherent to the growth. This condition became progressively worse, and removal was recommended, and performed November, 1893, by Dr. Roddick, who forthwith sent the tumor to the McGill Pathological Laboratory.

On examination the growth was found irregularly spherical in shape, 1½ inches in diameter. On section it offered considerable resistance to the knife, while on the cut surface were seen numerous small points from which a greyish turbid fluid escaped. This fluid, examined under the microscope, presented masses of irregularly rounded or oval cells, slightly larger than pus cells, and many undergoing fatty and granular degeneration.

Stained sections of the tumor, cut so as to include the adherent skin, showed the epidermis to be only slightly affected, there being

but a slight proliferation of the epithelium, while beneath it was increased fibrous tissue, a condition of chronic inflammation. Beneath this, in the subcutaneous tissue, was seen the tumor proper, presenting the usual appearance of a simple carcinoma; masses of large irregular cells amid extensive areas of fibrous tissue, in an alveolar arrangement.

On closer inspection of the parts, it was found that the growth took its origin from the epithelial lining of the sudoriparous glands, in whose ducts could be seen the various stages of proliferation of cells, while in the neighboring regions were the appearances of an alveolar cancer. The sebaceous glands presented no abnormal appearance, nor was there any evidence to point to the origin of the tumor, other than that suggested.

Although many cases of adenoma of the sweat glands are said to have been falsely regarded as carcinomatous, there is, however, in the present instance so typical an appearance of an alveolar carcinoma that such an error is quite impossible, and the tumor cannot be regarded other than as a cancer arising from the sudoriparous glands.

Dr. ADAMI stated that the tumor had at first been regarded by Dr. Roddick as an enlarged sebaceous gland. Subsequently a diagnosis of epithelioma was made. He had recently shown an analogous case, when what looked like an epithelioma of the tongue proved to be a scirrhus arising from some of the muciparous glands of that organ.

Chronic abscess of bone—Dr. ADAMI showed a knee joint resected by Dr. Armstrong at the Montreal General Hospital during the past summer. The patient apparently recovered, but sinuses formed, and kept on discharging in increasing quantities. The man became emaciated. Amputation was performed by Dr. Sutherland two weeks ago. Union was pretty well advanced, but was entirely fibrous in nature. There was still a slight movement between the bones. On making a section, a number of small abscesses connecting with one another were found situated in the lower extremity of the femur, and connected with the region between the two bones from whence they discharged. No tubercle bacilli were found. The condition appeared to be one of chronic suppuration. The question was whether these abscesses were the result of old foci of disease not detected at the time of operation.

Dr. ARMSTRONG stated that the patient, a lumberman about 35 years of age, had sustained some slight injury of the joint, but was able to continue work for about six months. The joint was then found swollen and painful, and evidently extensively diseased. Immobilization of the limb was tried without benefit, and so Dr. Fenwick's excision operation was performed. Some sinuses which persisted were

scraped under ether two or three times, without benefit. He was surprised to learn that no tubercle was found, as at the time of excision the joint had all the naked eye appearances of tuberculous disease.

Dr. BELL suggested the possibility of the condition being originally tuberculous, the bacilli having subsequently become destroyed. He was of opinion that the abscesses were there at the time of operation, but did not communicate with the joint. All surgeons know that when a thin slice is sawn off the end of a bone, little foci of disease are noticed in the new surface exposed. Had always thought it strange that more of these little pockets did not lie higher up in the bone; in this case it looked as if they had.

Dr. SHEPHERD thought that the abscesses were present at the time of operation. The pain, at the time, was much more severe than seemed called for by the extent of the joint disease.

Tuberculosis of the Liver and Oviduct of a Pigeon—Dr. WESLEY MILLS exhibited the specimen, showing what extensive disease could exist in domestic animals in apparent good health. The bird seemed quite well till a few days before its death.

The discussion was postponed pending a report from the pathologist.

Pyosalpinx and Gonorrhœal Arthritis—Dr. LAPHORN SMITH exhibited a specimen of double pyosalpinx in a woman aged 42, suffering from gonorrhœal rheumatism of the right knee joint. The patient had been ill ever since her marriage, 10 years before. Examination showed the uterine appendages filling Douglas pouch and forming a tender fluctuating mass the size of an orange. While in hospital, preparatory to operation in June, 1893, she suddenly developed high fever, swelling of the first joint of the right fore-finger and scalding in micturition. Next day the right knee became swollen and painful. There was a yellow purulent discharge from the urethra and vulva vaginal glands. Exploratory puncture of the knee-joint yielded an opalescent serum. This was not examined for gonococci. After seven weeks the joint was still stiff and painful. Temperature then normal. In October, 1893, celiotomy was done and the appendages removed. The tubes were found distended with pus and closely adherent. Recovery was good. The operation was followed by marked improvement of the knee joint, and the patient made a rapid recovery. The husband admitted having recurrent attacks of gonorrhœa, the last occurring shortly before the wife developed the above-mentioned arthritic attack. The gonorrhœal infection probably affected the parenchyma of the uterus, which should really have been extirpated.

Dr. ALLOWAY said he differed from Dr. Smith as regards the interpretation of the metastasis. He thought the disease of the knee-joint not gonorrhœal, but pyæmic, and that the subsequent occurrence of inflammation in the finger joints confirmed this view. He had seen several times metastasis of this nature following pelvic disease. In one case seen with Dr. Shepherd, where there was suppuration of both knee joints, the remains of a necrotic placenta were found in the uterus. On scraping the uterus the patient recovered. He did not think the joint disease in Dr. Smith's case was due to the gonococcus.

Dr. SMITH in reply stated that if his case had been pyæmic, pus would have been found in the joint, instead of only an opalescent fluid. He had himself thought of pyæmia, but the fact of the pus tubes having been there for ten years without any metastasis, and the knee affection appearing after an attack of gonorrhœa made him change his opinion.

Discussion on Dr. Mills' paper on Hibernation—Dr. F. W. CAMPBELL mentioned a case of duodenal ulcer where the subjective symptoms had disappeared under the mental condition induced by a favorable (though wrong) diagnosis being given, and had returned again only when the correctness of the diagnosis was insisted upon. The diagnosis was confirmed by autopsy. The mental condition seemed to determine whether pain, etc., was felt or not.

Dr. GIRDWOOD told of the doings of two woodchucks formerly in his possession. These animals did not hibernate.

Dr. ADAMI asked if Dr. Mills had tried the experiment of feeding the animals abundantly.

Dr. MILLS, in reply, stated that he had not been able to prevent hibernation by good feeding. He referred to some interesting work by Carlier on the histology of the hedge-hog, showing that the tissues during hibernation differed from these in the normal state in the following particulars:—(1) They were less readily acted on by nuclear stains. (2) The cells were smaller. (3) The leucocytes of the blood were diminished in number. This latter point would, theoretically, make the animal more susceptible to infection than when not hibernating. His object in making these studies was to see if a general law of relation could be established between hibernation and sleep. It was possible that primeval animals lived in a state analogous to hibernation.

Statistics of Homicide in American cities—

Dr. WYATT JOHNSTON, who read a paper on this subject, had found the annual number of homicides (including manslaughter and infanticide) per 10,000 living to be approximately as follows: Central District of London, .15; Vienna .18; Paris, .19; Philadelphia and Liverpool, .22; Montreal, .24; Buffalo, .33;

New York, .35; Boston, .43; Toronto, .50; Pittsburg, .51; Chicago, .65; Cleveland, .66; Birmingham, .89; St. Louis, 1.38; Louisville, 1.58; Charleston, 2.00. These estimates were based on the findings of inquests, not of trials. The greater proportion of homicides occurred in the Southern States, where a large and lawless negro element existed and where concealed weapons were habitually carried. The apparent low homicide rate in great European cities was a matter of surprise. The low rate in Montreal might be due to the peaceable character of the people and the absence of concealed weapons rather than to cases being overlooked, as in other cities the majority of homicides were from such easily recognized causes as cuts, blows and stabs. Abortion and poisoning were forms likely to be overlooked, and a proper system of death certification would be a great check upon homicides of this kind. In Boston a system of investigation of all deaths from peritonitis in all women of the child-bearing age had led to the detection of many cases of abortion previously unnoticed.

Mr. QUINN, Q.C., Crown Prosecutor, who was present, said he thought the composition of coroners' juries in various places would tend to affect the statistics. A low status of jury would lessen the number of homicide verdicts. Montreal juries rarely gave a verdict in accordance with the evidence. In the case of large cities like London, many homicides probably occurred when the bodies were never found, and this might partly explain the apparently low proportion. The means of concealing crime increased with the population. He had reason to believe that abortion is more common in Montreal than was supposed. The criminal death rate reported in Montreal was not the true one. All deaths should be reported to the health office, and, unless properly accounted for, the matter should be placed in the hands of a medical officer, for thorough medico-legal investigation.

Dr. GIRDWOOD agreed with Mr. Quinn, as to death certification. In the Hooper case, a certificate was obtained from a physician who knew nothing about the woman or the death. No man should give a certificate unless he had seen the person during life or had made some diagnosis.

Dr. SHEPHERD believed that many cases reported as stillbirth were really cases of infanticide.

Death Certification.—The Secretary read a communication from Dr. LABERGE, city health officer, asking for the co-operation of the Society in securing an amendment to the city charter in the matter of certification.

Dr. LABERGE's letter pointed out that a death certificate could be given by any relative or friend of the deceased, practically by anyone at all. It was essential that these certificates

should only be signed by properly qualified medical men, and that the matter of deciding whether the qualifications of the signer were satisfactory and the certificate properly made out, as regards nosology, should be left to competent persons, instead of, as at present, to superintendents of cemeteries, whose education hardly fitted them for these important duties.

Upon motion of Dr. F. W. CAMPBELL it was resolved to refer the matter to the council of the Society, and such other persons as the council might select, with power to give Dr. Laberge such advice and assistance as seemed necessary.

Progress of Science.

HERNIA IN CHILDREN.

Wirt (*International Medical Magazine*, February, 1894), in an excellent contribution on hernia, gives the following table of the relative frequency of the different forms of hernia as found in 19,756 cases treated in the Hospital for Ruptured and Crippled, New York City :

	No Cases.	Male.	Female.	Under 14.	Right.	Left.	Double.
Inguinal..	16,864	14,994	1870	4348	7806	4375	4686
Umbilical.	1,488	569	919	789
Femoral..	1,135	418	717	26	700	379	56
Ventral..	269	95	174	13
Total..	19,756	16,076	3680	5176	8506	4754

He classifies treatment under three heads : 1. General treatment ; 2. Mechanical support ; 3. Operative measures.

General treatment is directed toward the relief of the conditions causing the hernia, as vomiting, coughing, calculus, a rectal polypus, or chronic diarrhœa, or, when necessary, to tonic treatment, out-door exercise, etc.

Mechanical treatment as given in the Hospital for Ruptured and Crippled, consists in using a steel spring truss for all reducible cases except umbilical and ventral. The Knight truss is used most, and is efficient and cheap. In cases difficult to hold, the Hood truss is employed, and in the worst cases a combination of the Knight and Hood.

Umbilical herniæ are treated by means of a wooden button held in place by rubber adhesive plaster.

Operation for hernia requires strict anti-septic precautions, great care in dissecting out the sac and handling of the spermatic cord. The sac should be tied off well down in the wound, the external portion removed, and the stump returned into the abdominal cavity. The wound should be closed and dressed antiseptically, and over all a plaster-of-Paris spica should be applied from ankle to umbilicus. The casing should be removed in eight days, and the wound then dressed.

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MONTREAL, APRIL, 1894.

THE PHYSICIAN'S WIFE.

We thought we knew something about the doctor's wife ; but after having read a charming little book entitled "The Physician's Wife and the Things that pertain to her Life," by Ellen W. Firebaugh,* we must confess that we had only a very faint idea of all the beauties of her character. The author in the most natural and modest manner tells her own feelings, which are probably the feelings of a majority of her sisters, amidst all the vicissitudes of pleasure and sorrow which go to make up the daily life of the country doctor. No doctor or doctor's wife can read this book without exclaiming at almost every page : "How true to life the description is." Whether it is her efforts to keep the doctor's dinner hot without spoiling it ; or talking care of the doctor when he is sick,—one of the most difficult tasks she has to perform ; or whether she is describing a sick-bed scene among the poor ; or her fear and trembling at being left alone in the house while the doctor is answering a midnight sick call, her descriptions are always graphic and interesting. Many of them are illustrated with sketches which bring them still more home to ourselves. One picture shows the doctor's first meeting the little girl who is to be his future wife ; another, the doctor and his wife in their easy chairs drawn close to the grate fire, and enjoy-

*Published by F. A. Davis & Co., Philadelphia.

ing an all too brief rest after the labors of the day have been concluded, and, we might add, before the labors of the night begin. Then we see the doctor at the dinner table with a couple of medical friends beside him, while the doctor's wife has to listen patiently while they are talking "shop." In the latter, however, she soon becomes very proficient, so that in her husband's absence she is often able to tell an anxious patient what to do until the doctor comes. The country doctor will especially appreciate her descriptions of the difficulties of collecting a little ready cash, and of being so often paid with a load of pumpkins or turnips; and will sympathize with her when she tries in vain to obtain the assistance of some recalcitrant debtor who when ill expects to receive the best of care and medicine, but when well begrudges the doctor a day's work on his potato patch or flower garden. The doctor's wife sees human nature very often from behind the scenes, and she has in the volume before us described what she has seen with an amusing but not unkindly pen. While it will be most enjoyed by those for whom it was written, the doctors' wives, it will not be without value to the doctor himself, who, after reading it, will be ready to admit, if he has not done so before, that much of what he is or hopes to be he owes to the tender care and companionship of his better half. Many a young doctor will be induced to risk the unknown troubles of a country doctor's life when he learns that they are so much lightened by the assistance of a country doctor's wife.

BOOK NOTICES.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES, a yearly report of the progress of the general sanitary sciences throughout the world. Edited by Charles E. Sajous, M.D., and seventy associate editors, assisted by over two hundred corresponding editors, collaborators, and correspondents. Illustrated with chromo-lithographs, engravings, and maps. In five volumes. Philadelphia, 1893. The F. A. Davis Company, Publishers. Annual Subscription, \$15.

We hope our readers are fully acquainted with the excellencies of this most excellent Annual. It is a store house of medical progress, a time saver when hunting information, and, in the highest and best sense, practical.

The volumes of the sixth series only serve to emphasize our previous opinion of the value of the Annual to every reading physician. The editor's residence in Paris, in the interests of the Annual, has enabled him to secure the assistance of some of our more distinguished associates in Europe on the editorial staff, and in various ways to strengthen and improve the work.

With the appearance of each new series our admiration increases. As we have said before, we hardly know which to admire most, the financial courage of the publishers or the unremitting toil of the editors. These thousands of pages come direct from the pen of the leading men in Europe and America, each in his speciality; how they manage to find the time to do it has puzzled us more than once. Those of our readers who have purchased this work have told us that they were more than satisfied with it; for those who have not seen it we may mention that it contains the gist of the thousands of articles which have appeared in the medical journals throughout the world during the past year, so that there is hardly a subject one can think of that has not been fully noticed in the volume before us. We hope that it will receive such strong support from the profession as to justify the publishers in undertaking such a marvellous work.

HOW TO USE THE FORCEPS, with an introductory account of the female pelvis and of the mechanism of delivery. By Henry G. Landers, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children in Starling Medical College, Columbus, Ohio. Revised and enlarged by Charles Buchong, M.D., Assistant Gynecologist and Pathologist to Demilt Dispensary, New York. Illustrated. New York: G. B. Treat, publisher, 5 Cooper Union, 1894. Price, \$1.75.

In our experience the forceps are used much too often; only in exceptional cases is the other extreme met with in which they are not used when they clearly should be. The work endeavors to show when and how they should be used so as to do the least damage.

VENEREAL MEMORANDA. A Manual for the Student and Practitioner. By P. A. Morrow, A.M., M.D., Clinical Professor of Venereal Diseases in the University of the City of New York. New York: William Wood & Company, 1894.

It must be the experience of most practitioners that a great deal of time is lost while driving along the country roads in summer days, or while waiting at a confinement case during the night. That time might be well employed if one

only had something in his pocket to read. To fill this very want the publishers have provided this series of pocket manuals, of which the above is one of the most interesting. It measures less than 3 by 5 inches, but contains over 300 pages, and it is surprising how much profit one may derive from the study of it during one's spare moments. We are unable to state the price, but it is probably very moderate, and it can be obtained through any bookseller.

SYLLABUS OF LECTURES ON THE PRACTICE OF SURGERY, arranged in conformity with the American Text-Book of Surgery. By N. Senn, M.D., Ph.D., LL.D., Chicago, Professor of the Practice of Surgery and Clinical Surgery in Rush Medical College; Professor of Surgery in the Chicago Polyclinic; Attending Surgeon to Presbyterian Hospital; Surgeon-in-chief St. Joseph's Hospital. Philadelphia: W. B. Saunders, 925 Walnut Street, 1894. Price \$2.00.

Every teacher of surgery must have felt the need of some short guide to aid him in the lecture room in presenting the various subjects in a systematic, clear, succinct and practical manner. The student of surgery during his early college experiences is often bewildered by what he hears and reads, and keenly experiences that want of something which should enable him to separate the chaff from the wheat, and to memorize facts which he is expected to retain and apply at the bedside during his future professional career. This little book has been written to meet these requirements. Its contents have been arranged in conformity with the *American Text-Book of Surgery*, which in less than a year has achieved an unparalleled popularity, both among teachers and students. Wherever the text was found defective facts have been added names of authors and operations, while in other places subjects not belonging within the limits of the practice of surgery have been excluded. Recitations are gradually displacing didactic lectures, and it is the author's hope that the Syllabus will prove of special value for this method of instruction, as well as in the preparation of the student for the final examinations.

NINTH AND TENTH ANNUAL REPORTS of the Bureau of Statistics of Labor of the State of New York for the year 1891, in 2 volumes.

We have to acknowledge the receipt of the above 4 interesting volumes from the commissioner, Mr. Thos. J. Dowling.

A PRACTICAL TREATISE on the office and duties of Coroners in Ontario, and the other Provinces, and the Territories of Canada, and in the Colony of Newfoundland, with schedules of fees, and an appendix of

forms. Third edition. By William Fuller Alves Boys, LL.B., Junior County Court Judge County of Simcoe, Ontario. Price \$3.50 cloth or \$4 in half calf. Toronto: The Carswell Co. (Limited), law publishers, etc., 1893.

This work is specially interesting just now when we are trying to improve our Coroner's laws in this province.

A PRACTICAL TREATISE ON NERVOUS EXHAUSTION (Neurasthenia); its symptoms, nature, sequences, treatment. By George M. Beard, A.M., M.D., Fellow of the New York Academy of Medicine; of the New York Academy of Sciences; Vice-President of the American Academy of Medicine; Member of the American Neurological Association; of the American Medical Association; the New York Neurological Society, etc. Edited, with notes and additions, by A. D. Rockwell, A.M., M.D., Professor of Electro Therapeutics in the New York Post-Graduate Medical School and Hospital; Fellow of the New York Academy; Member of the American Neurological Association; of the New York Neurological Society, etc. Third edition, enlarged. New York: E. B. Treat, 5 Cooper Union. 1894. Price. \$2.75.

Neurasthenia is now almost a household word, and, equally with the term malaria, affords to the profession a convenient refuge when perplexed at the recital of a multitude of symptoms seemingly without logical connection or adequate cause. The diagnosis of neurasthenia, moreover, is often as satisfactory to the patient as it is easy to the physician, and by no means helps to reduce the number who have been duly certified to as neurasthenic, and who ever after, with an air too conscious to be concealed, allude to themselves as the victims of nervous exhaustion. The doctrine to be taught and strongly enforced is that many of these patients are not neurasthenic, and under hardly any conceivable circumstance could they become neurasthenic. They do not belong to the type out of which neurasthenia is born, either mentally or physically.

Many of them are unintellectual, phlegmatic, and intolerably indolent, and are pleased at a diagnosis which touches the nerves rather than the stomach, bowels and liver. Instead, therefore, of rest, quiet, and soothing draughts, they need mental and physical activity, less rather than more food, depletion rather than repletion.

These patients are lithæmic and not neurasthenic. The nervous system is strong enough, and would give no trouble were it not poisoned by the abnormal products of digestion that en-

ter the blood and circulate freely through every tissue of the body.

Nevertheless, there are many cases of genuine nervous exhaustion occurring equally among merchants and society ladies, whose education and mode of life have given too great a preponderance to the functions of the nervous systems to the neglect of the digestion and muscular system. These cases are generally exceedingly difficult to manage for obvious reasons. The book will therefore be of great value, coming as it does from one who has had such a large experience with this class of cases.

A TREATISE ON HEADACHE AND NEURALGIA, including Spinal Irritation and a Disquisition on Normal and Morbid Sleep. By J. Leonard Corning, M.A., M.D., Consultant in Nervous Diseases to St. Francis Hospital; Fellow of the New York Academy of Medicine; Member of the New York Neurological Society, etc. Author of "A Treatise on Hysteria and Epilepsy," "Local Anæsthesia," "Brain Rest," etc. With an Appendix. Eye Strain a cause of Headache, by David Webster, M.D., Prof. of Ophthalmology in the New York Polyclinic; Surgeon to the Manhattan Eye and Ear Hospital, etc. Illustrated. Third edition. New York: E. B. Treat, 5 Cooper Union; London: H. K. Lewis, 136 Gower Street. 1894. Price \$2.75.

The affections treated of in the following pages have ever shown a decided predilection for the neurotic portion of our population. For the great towns of the Atlantic seaboard, headaches and neuralgias exhibit a special preference. To the nervous exhaustion and strain incident to the irregular mode of life and competition of the great cities are due, in no small degree, these head pains so often the precursors of impending nervous bankruptcy. The same causes, in conjunction with one of the most trying climates to be found in the whole world, serve also to give rise to a thousand aches and pains, the most excruciating of which are those neuralgias of the face that not infrequently drive the victim to suicide or the madhouse.

For several years past the author has devoted much time to the careful study of these prolific sources of human misery. He has not done this in a spirit of mere pathological analysis; but his endeavors have been of a practical kind, every thought being directed to the relief and cure of these distressing affections.

He has also added chapters on insomnia; relation of eye strain to headaches; and the localization of the action of remedies on the brain.

A PRACTICAL TREATISE ON THE DISEASES OF THE HAIR AND SCALP. By George Thomas Jackson, M.D., Professor of Dermatology, Women's Medical College, N.Y. Infirmary; Chief of Clinic and Instructor in Dermatology, College of Physicians and Surgeons, &c. New, edition revised and enlarged. New York: E. B. Treat, 5 Cooper Union, 1894. Price \$2.75.

In this edition of this book the reader will find all the knowledge about the hair that has been gained during the years that have gone since the appearance of the first edition of this book in March, 1887. During this time alopecia areata, the parasitic diseases, and seborrhœa have been studied with great care by many investigators.

Every page of the old edition has been revised and corrected; new articles upon folliculitis decalvans, leptoithrix, and aplasia pilorum propria, and many new sections to the old chapters, have been added. The bibliography has been brought down to January, 1893, and nine new illustrations have been inserted in the text.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third series, volume the fifteenth. Edited by G. G. Davis, M.D. Philadelphia: Printed for the College, 1893.

This volume, which does great credit even to this distinguished body, contains twenty-four articles from the pens of such men as C. K. Mills, Shoemaker, Tyson, Sinkler, Noble, Wood, Hare, Cohen and Hirsch.

The president's address by Weir Mitchell and the memoirs of Hayes Agnew by J. William White are also very interesting. Any young man who has the good fortune to read this life of Agnew cannot fail to be benefited by its perusal. The secret of his success is easy to find. The book is printed for the College, but we trust for our readers' sake that it has been placed on sale at a reasonable price, for it contains many medical gems.

PUBLISHERS DEPARTMENT.

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Original Communications.

CASE OF FUNCTIONAL MONO- PLEGIA (BRACHIAL).

By

D. CAMPBELL MEYERS, M.D., M.R.C.S.
Eng., L.R.C.P. Lond.

The history taken from my case-book is the following :—

Maud B., æt. 17, unmarried, book-binder's apprentice. Family history--father strong and healthy, mother nervous, and at times she has been very melancholy, feeling despondent about the future. At one time she would weep easily, and she now has attacks of laughter which she finds difficult to control. She had fits when a child, in which she would fall in the street. She also had St. Vitus' dance. She is the mother of nine children, all of whom are healthy except patient. Dr. Baines tells me one of these children is very small for his age, but is bright intellectually. No consumption; no insanity, but one maternal aunt childish.

Previous history.—Patient has never been strong, and always complained much

of her back. She had measles eleven years ago; no fits of any kind. Menstruation began at 14½, and continued regularly till present illness.

Present illness began about seven months ago, when left shoulder got weak, and this weakness gradually extended down left arm. Patient says it came on suddenly. She went to a friend's house to tea, and while at tea she had a severe pain in the left shoulder, and she found she could only move it with pain. There was no swelling or discoloration about the shoulder. There is no history of any accident, and patient has had no worry, trouble or fright to bring it on. After remaining at home a few days the pain ceased, and she returned to work, but this she was obliged to give up in a few days owing to weakness of the left arm. Since this time she has been unable to use her arm. Her mother says she is of a very excitable nature.

Examination, Nov. 4th, 1893, showed an aræmic but well-developed girl, without any muscular atrophy. She has marked paresis of whole left upper limb. She can move it in various directions but without much force. Dynamometer gives left hand 0, right 35. Sensibility to pain is entirely absent over lower part of left hand. It

extends upwards on the back of the hand to about one inch above knuckles, and on the front it corresponds to lowest fold running across the palm. The entire hand below this is absolutely anæsthetic, including the last joint of the thumb. There is no hæmorrhage from the prick of a pin. The sensibility on the upper part of the hand and the remainder of the limb is quite normal, and the sense of location good. Triceps reflex is not obtainable. Wrist reflex present but not exaggerated. She is wholly unable to state the position of the fingers of left hand, eyes being closed. She says they are flexed when extended, and vice versa. With the eyes closed she can imitate a movement given to her left arm only approximately with her right, and in placing her left fore-finger on the end of her nose or in bringing the two forefingers together she exhibits a certain amount of inco-ordination. Left leg and foot normal as to muscular sense as well as to the sense of touch, pain and location. She says left ankle is a little weak, and that it turns over occasionally when she walks. Muscular force good, but perhaps a little less than in right leg. Knee-jerks normal. Other limbs and face unaffected in any way. Eye discs normal. No noticeable contraction of field of vision. Central vision good, and she recognizes colors well. Internal organs healthy. No headache of late, formerly she had some in frontal region. Tongue protruded straight, pulse 84 and regular. Paralysis is flaccid, and no rigidity in any part of the limb. Mother says that the paralysis has been much the same as at present for last four months. Dr. Tines, who kindly sent me the case, tells me that he passed a current of 150 milliamperes momentarily through the hand, without evoking the least sign of sensation. Nov. 7th, Dynamometer. Left hand 10 lbs., right 44. Muscular movements performed with greater force than last day. The sensibility of the hand is much improved. She can now feel pin prick on the palmar surface of hand and fingers but not on the back. The joints of these fingers can be twisted without causing any pain, but wrist, elbow and shoulder joints are more or less sensitive. Sense of weight is defective in left hand, normal in right. The muscular sense is somewhat improved. Hearing, taste and smell good. Pharyngeal reflex

present. No trophic disturbances in skin of hand. No hysterogenous zones. I applied static electricity.

Nov. 8th, Dynam. Left hand, eyes closed, 5 lbs.; with the eyes open, 11 lbs. Right hand 36 lbs. Voltaic electricity shows no reaction of degeneration in the muscles, and the induced current acts normally. She says she can now feel the electric current in the hand.

In regard to diagnosis, since the disease is evidently an affection of the nervous system, its seat must therefore be in the peripheral nerves, in the spinal cord or in the brain. If in peripheral nerves we must look to a lesion of brachial plexus to explain it. The absence of atrophy, the normal electrical reactions, the absence of trophic trouble and the peculiar distribution of the anæsthesia, which is entirely different to that due to a lesion of the brachial plexus, render this suggestion untenable. If it were a lesion of the cord we must suppose it strictly limited to the anterior cornu, since no other parts of the body are distinctly implicated. An inflammation of the grey matter here, however, would certainly have led in this time to a marked atrophy of the muscles and reaction of degeneration, both of which are absent. A disturbance of sensibility and the loss of muscular sense, together with the absence of a febrile onset, quite excludes the possibility of the anterior horn in the cervical region being the seat of the trouble.

We now have the internal capsule and cortex of the brain left, an affection of the medulla, pons or cerebral peduncle not requiring notice from the peculiar distribution of the symptoms. If we suppose a sudden organic lesion either in the internal capsule or the grey substance, we would naturally expect some apoplectic symptoms which are entirely wanting in the case before us. An organic lesion of the internal capsule producing a pure brachial monoplegia is a fact almost unknown. It would be necessary besides to suppose the lesion to be limited strictly to the anterior part of the posterior limb, and in this case there would be no disturbance of sensibility.

There now remains the grey substance or the subjacent part of the cerebrum ovale to be considered. A lesion here sufficiently severe and strictly limited to the middle

third of the ascending frontal and ascending parietal convolutions would undoubtedly have, as a consequence, a brachial monoplegia, but such a monoplegia in a pure form, without any implication of the face, tongue or leg at any time is almost as rare as a lesion producing the same effect in the internal capsule. Besides, such a lesion must be followed by secondary degeneration, which would be marked clinically by a certain degree of contraction in the affected arm, and also by an exaggeration of the tendon reflexes, both of which are absent in this case. Further, if we suppose the lesion limited to the middle third of the Rolandic area alone, how are we to account for the *marked* sensory disturbances here met with?

A consideration of these facts, together with the history that for the past four months the patient's condition has remained *in statu quo*, and also in view of the fact that her condition has suddenly improved (within the past three days) both in regard to the diminished extent of the sensibility and the increased force of the grasp, shows, I think, that the case is one of a functional nature, cerebral in its origin.

We at once come to the question, should we not use the term hysterical rather than the more extended one of functional monoplegia? In regard to this question the researches of the late Prof. Charcot in hypnotism are extremely interesting. In hysterical subjects he produced by hypnotism a complete paralysis limited to the arm, with loss of cutaneous and deep sensibility. He went even further and produced paralysis and sensory loss in the limb, segment by segment, the remaining portion of the arm being unaffected. In other words, he produced by suggestion a condition precisely like that met with in certain cases of brachial monoplegia, which he has reported, from which he assumed that *all* these cases were hysterical paralysis. But does it follow from this that the same results might not be obtained from persons subjected to hypnotism which were not hysterical? I believe so, and the absence of other hysterical symptoms in this case, such as a peculiar mental condition, hysterogenous zones, attacks of any kind, and the limited extent of the deranged sensibility, together with the absence of any marked affection of the special senses or derange-

ment of the pharyngeal reflex, lead me to think the case one of a functional rather than of hysterical paralysis.

In regard to the location of the trouble, Charcot in some similar cases which he has published placed it in the middle third of the Rolandic area, with some encroachment on the adjoining parietal lobule. Bastian, who, as you know, does not consider the Rolandic area as being purely motor in its functions, but rather a kinæsthetic centre (that is, a centre for sense of movement impressions), would, I think, explain the paresis and loss of muscular sense by a lesion of the Rolandic area, but the disturbance of the other forms of sensibility he would explain by a co-existing lesion of some of the sensory fibres in the posterior part of the internal capsule.

Of the pathogenesis, vaso-motor derangement or lowered nutrition seem to me the two most probable causes. Although, according to Foster, vaso-motor nerves have not been demonstrated in the arteries of the brain, this negative evidence, he says, is not to be too much relied on. That a vaso-motor spasm in the brain should exist continuously for months seems strange, but is it any more so than that the same spasm should exist for an equal length of time in the region of the body affected by anæsthesia, as can be demonstrated by the absence of hæmorrhage following slight wounds of these parts? Moreover, the sudden disappearance of long continued symptoms, which sometimes occur as the result of a strong emotion or a convulsive attack, would certainly seem to indicate that no serious nutritive lesion had taken place.

This case presents some interesting points (1) as to the cause, a pain in the shoulder leading to its paralysis and soon that of entire limb. That an injury to the shoulder will produce these symptoms is well known, or, further, a mere slap on the shoulder of a person who was hypnotized will also produce it. With these facts in view, would we be justified in supposing that a sudden pain in the shoulder coming on without obvious cause might so react on the brain of a predisposed person as to produce a similar paralysis? This case would seem to indicate it.

(2) The affection of the muscular sense

throughout the whole paralyzed part (although most intense where the anæsthesia was present) would certainly bear out Bastian's assertion in regard to the kinæsthetic centre, rather than the theory that the Rolandic area is purely motor in its function. (3) The distribution of the anæsthesia is remarkable, and is just the converse to one of Charcot's cases, in which the anæsthesia extended down the arm to almost exactly the point where the loss of sensibility begins in this case, the fingers and part of the hand remaining in his case unaffected. (4) The difference in the pressure on the dynamometer with the eyes open and closed is also remarkable, an additional motor power evidently being derived from the visual impulse.

The prognosis is, I think, favorable, and a complete recovery is to be hoped for.

In regard to treatment, I may say I have applied static electricity, and she is continuing at present the tonic given her by Dr. Baines. I may add that I believe much good will be derived from methodical exercise, and that moral treatment will also be of essential benefit.

The patient, when presented at the Clinical Society this evening, Nov. 8, 1893, had entirely recovered from her sensory symptoms. The anæsthesia had disappeared, and the muscular sense so improved that she could imitate movements given to left arm very closely with the right. The muscular force had improved, but was not yet normal. I may also add that the prick of a pin in the previously anæsthetic area was followed by a slight hæmorrhage.

TORONTO, 199 Simcoe St.

P.S. The patient recovered completely within one month after last note.

THE GALVANO-CAUTERY CURRENT OBTAINED FROM THE ALTERNATING CURRENT IN THE STREET.

BY A. LAPHORN SMITH, B.A., M.D., M.R.C.S. England, Vice-President of the American Electro-Therapeutic Association, Gynæcologist to the Montreal Dispensary, Surgeon to the Woman's Hospital, Montreal, Canada.

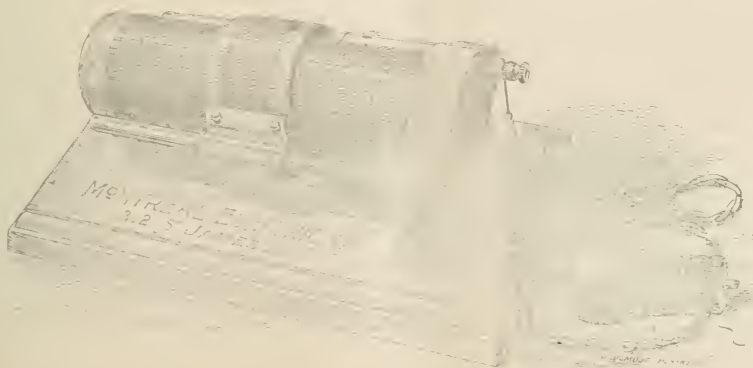
So recently as ten years ago electricity was still in the experimental stage,—if indeed it may not be said to be so still, for every day we are finding new uses for it and new methods of handling and controlling it. But at the present day at least it has become a commercial commodity, and can be purchased in almost every city for about three-quarters of a cent per ampere hour. On the other hand, the galvano-cautery wire is one of the handiest and most convenient instruments for a great variety of work in gynæcology, as it is in laryngology and dermatology. For certain delicate little operations, such as the removal of vascular growths from the female urethra, or the removal of portions of the cancerous uterus, or, in fact, any operation where we wish to cut without causing hemorrhage, it is simply invaluable. Paquelin's thermo-cautery is not to be compared with it for the galvano-cautery wire can be applied and carefully adjusted while cold, and then by the touch of a spring it becomes red or white hot as long as desired, and it can be allowed to cool before being removed. Moreover, the heat can be regulated to any shade from straw color to cherry red or pure white, which is not so easily done with any other form of cautery. The great objection to the galvano-cautery has been so far that it has required a very expensive and cumbersome battery to be carried around with it in order to obtain the supply of current. These batteries had to have a very high potential or electro-motive force as well as a large amperage, necessitating the employment of a strong acid and violent chemical action on the zinc. The latter metal became rapidly polarized or covered with bubbles of hydrogen, so that it was necessary to have a bellows constantly working to keep the liquid in motion in order to wash these bubbles off, otherwise the chemical action would stop and the flow of the current would cease. The cleaning and renewal of this battery was a dirty and expensive business, and though improvements were constantly being made in its manufacture, it was always dirty, heavy, and constantly getting out of order, owing to corrosion of the connections. The advent of the storage battery was gladly welcomed, for although it weighed 40 lbs., and was therefore much lighter than the acid battery, required no bellows

for stirring up the liquid, held enough current to run the cautery for any ordinary operation, and could be recharged by means of half a dozen or a dozen gravity cells such as are used in the telegraph office. But even with the storage battery, there was the trouble of keeping the gravity cells in order, for they are eating themselves up continuously night and day, whether they are being used or not, and the repairing of them is dirty and expensive work. Still, by keeping the gravity cells in the cellar, and having them repaired and cleaned by the local electrician or telegraph operator, and by keeping the portable storage battery in the office always fully charged, the inconveniences were reduced to a minimum, the high first cost, about fifty dollars, being the strongest objection to it. During a recent visit to New York, such a storage battery outfit was seen in the office of Dr. Skene, the celebrated gynaecologist of Brooklyn, who stated that it gave great satisfaction and was in constant use for the treatment of urethral caruncles.

Before incurring the expense of this installation the writer consulted Mr. Shaw, of the Montreal Electrical Works, 302 St. James Street, Montreal, in order to see whether it was not possible to utilize the ordinary street current for the purpose. It seemed to the writer that if it would heat up a carbon wire to a white heat in a vacuum, it would just as easily heat up a platinum loop in the air. Mr. Shaw at once undertook to construct such an instrument, and in a few days the apparatus, as shown in the accompanying cut, was placed in the writer's hands, at a cost of twenty dollars. In this instrument, which only weighs a couple of pounds, the ordinary house cur-

rent of fifty-two volts is passed through a very long coil of rather fine wire and then goes back to the main. Owing to the resistance or holding back power of this long wire, a considerable quantity of electricity is stored up in the wire. If another long wire were coiled around this first one, having no connection with it, but on the contrary separated from it by a considerable space, this second coil would be charged with electricity of the same voltage, by reason of the induction—a quality which is unpleasantly noticed in the telephone wire when it passes near an electric light wire. By making the secondary coil of much shorter and coarser wire, the nature of the induced current is converted to one of much less voltage but of much greater amperage or quantity. This secondary coil is made to slide over the primary one so as to become more or less charged; by this means the quantity of current and the degree of heat in the cautery loop can be most delicately regulated to suit the various circumstances. There is no danger whatever either to the operator or to the patient, because the highly dangerous street current of one thousand volts is required by law to be reduced to the perfectly harmless and safe fifty-two volt current before it is allowed to be brought into the house. Or, more properly speaking, the one thousand volt current does not come into the house at all, a small portion of it only being abstracted by the iron boxes seen on the poles, and called converters, and which 52 volt current is in turn brought down to 2 to 6 volts by the transformer under notice.

This galvano-cautery is put in operation in the following manner: An electric light lamp is unscrewed from a socket and the wire from the coil attached by a similar



piece to that on the lamp. The current now circulates in the long coil without producing any visible effect. The secondary coil is then passed over it; the secondary coil is now charged with a current of great amperage, such as is given off by an acid battery. Still, there is no visible sign of it. The two cords from the cautery instrument are connected with the ends of this secondary coil, the connecting spring is pressed down, and the platinum wire at once becomes white hot, because it is such a bad conductor that the electricity rushing through it at such enormous speed causes sufficient friction to make it hot. As stated at the beginning, the house current costs only three-quarters of a cent per ampere hour; and as this instrument uses about four amperes in its primary coil, it only costs three cents an hour. However, as we never require to have the loop heated for more than a few seconds at a time, the cost of running it is practically nil,—the first cost being really the only one. In ordering an instrument, it is only necessary to inform the manufacturer of the voltage of the current in your house, and to send him the loop or loops which you are going to use; he can thus adjust the length of wire to give every shade of current that may be required. In Montreal, most of the physicians' offices are supplied with the alternating current from the Royal Electric Company, and this is the current used by the writer, and a similar current is also supplied at Quebec, Hamilton, Peterboro, Brockville, Sherbrooke and many other towns where this instrument can be equally well applied if the manufacturer is informed of the voltage. In any case the writer would advise the physician to purchase his platinum knives and loops first, and send them to the manufacturer, or else have the latter procure the cautery for him, so that they may be thoroughly tested together before leaving the factory. Dr. Byrne of Brooklyn, recently president of the American Gynæcological Society, has obtained a world-wide reputation for his skill in removing the cancerous uterus with the galvano-cautery, his statistics being fully equal to those of the best operators with the knife; and it is probable that in many other departments of surgery, the scope of the galvano-cautery will be greatly enlarged when it becomes generally known that the

mechanical difficulties have been entirely removed by means of this ingenious little instrument. In a still later improvement just out, another secondary coil is slipped over the other end of the primary coil, for the purpose of heating a small lamp for illuminating the cavity in which the cautery loop is being used. These lamps can also be supplied in various candle power and voltages. The only towns in which this transformer cannot be employed are those supplied with direct or continuous current.

Society Proceedings.

AMERICAN MEDICAL ASSOCIATION.

The American Medical Association will meet in San Francisco, June 5th, 1894.

The Transcontinental railroads have made favorable rates, viz., \$65.50 for round trip from all Missouri river points, which is one and one-twelfth fare.

The Southern Pacific Company's rates from Portland, Ogden, and El Paso are one fare.

All tickets sold at these points carry five coupons of admittance to the Mid-winter Fair.

The roads beyond Missouri river points are still charging about one and a half fares.

Cannot our brethren east of the Rocky Mountains yet induce the Central Traffic Association and Trunk Lines to equalize these rates? Several agents, in response to our circulars asking for a single fare, replied favorably, but stated it required united action of the several Associations.

An extensive itinerary for those who come from the Northern and Middle States is published in the Journal of the Association. In the April number of the *Occidental Medical Times* Dr. Parkinson has published an extensive itinerary of excursions and entertainments in this State for Members and their families during and after the meeting. Those who come from the Southern States will probably come over the Santa Fe and Sunset route. It will be well for them to come early, and do the Southern part of the State on the way up, and then depart via the Ogden or Shasta route. This will afford the greatest possible opportunity to note the varied resources of the Pacific Coast and the variety of scenery and climates within our borders. The Colorado Desert through which the road passes is 312 feet below the sea level, with a dry, hot atmosphere.

Going out over the Denver and Rio Grande, one reaches an altitude of 10,500 feet; while

on the Shasta route the road passes Castle Crag Tavern, winding around the base of Mount Shasta, whose summit is 14,144 feet high, and clad in eternal snows.

Colton and Riverside, the first important points reached on the Sunset route, are already far-famed for their delicious fruits and extensive orange groves which line the streets and highways for many miles.

Drs. M. F. Price and K. D. Shugart of the local committee on reception will take delight in showing them to visitors.

From here to San Diego and Coronado it is only four hours ride. They are located upon the bay in the extreme southwestern part of the State, only four miles from the Mexican border. This is now a fashionable all-the-year-round resort with one of the largest and best equipped hotels in the world, its main dining room having a capacity for a thousand guests.

Facilities for bathing and boating in the sheltered waters of the bay are unexcelled.

Drs. C. M. Fenn, W. A. Edwards and C. C. Valle of the local committee will extend every courtesy to visiting members.

Los Angeles, the chief city in the South, too well known to need any description here, is only five hours distant on the way north. Here Drs. H. Bert Ellis, H. S. Orme, Walter Lindley, Jos. Kurtz, J. P. Widney and W. L. Wills of the committee on reception will be delighted to show visitors the city and its suburbs, Pasadena, Santa Monica and other points of interest.

Santa Barbara, another charming resort by the sea, famous for its adjacent olive groves, in which it rivals Palestine, is only three hours ride from Los Angeles. Here Drs. S. B. P. Knox, J. M. McNulty and R. J. Hall of the local committee will do the honors of the occasion.

Leaving Santa Barbara by rail, the next point of interest will be Bakersfield, where an extensive system of irrigation has transformed a desert into a veritable garden of Eden.

Then comes Fresno, the largest and most successful vineyard district in the State, where Drs. Chester, Rowell and A. J. Pedlar of the local committee will pay every attention to visitors.

It is only seven hours ride from here to San Francisco, where the members of the reception committee will meet the visitors and escort them to their respective hotels. Those who come in over the northern routes, via Mount Shasta, Castle Crag Tavern, Soda Springs, Chico, and the State Capitol at Sacramento, may desire to depart by the Santa Fe or Sunset routes.

R. H. PLUMMER,

Chairman.

SAN FRANCISCO, April 25, 1894.

ELEVENTH INTERNATIONAL MEDICAL CONGRESS.

We are sorry to learn from letters received from physicians from America and England who have attended the Congress that it was sadly mismanaged. In order to obtain a hearing at all, the American physicians had to organize a committee, but even then they were unable to obtain any information about anything. The programmes were unreliable, there being several editions and each one different. The secretary of the American section describes its meeting simply as chaos added to confusion. Among those present we notice the names of Dr. A. A. Brown, F. Shepherd and F. Cornu of Montreal, and Drs. Aniley, Tobin and Kitchen of Halifax. It is stated that the maps were full of gross errors, and that Italians, who were stationed around in profusion to give information, would tell nothing without a "tip," and even then they knew very little. This was a great contrast to the ninth Congress held in Washington and the tenth held in Berlin, at both of which the arrangements were nearly perfect. We are sorry to see that the place fixed upon for the next meeting is Russia, as we fear very few will trust their lives in that barbarous country. Vienna or even Montreal would be a much more acceptable and more accessible place.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, December 1st, 1893.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Insular Sclerosis.—Dr. JAMES STEWART exhibited a boy and a girl, the subjects of insular sclerosis.

Discussion.—Dr. SMITH asked if there was any family history of syphilis, which might explain both the sclerosis and optic atrophy.

Dr. BELL asked if the disease usually occurred in families.

Dr. STEWART, in reply, said that there was no history of syphilis obtainable. Syphilis, as far as we know, has no connection with insular sclerosis. White atrophy of the optic nerve is simply a wasting of the axis cylinder and not like atrophy following inflammation. Only two instances are recorded where two brothers were affected with insular sclerosis.

Ureter vs. Appendix.—Dr. SMITH exhibited the patient from whom he had removed last spring what was thought at the time to be the ureter, but which proved to be the appendix vermiformis. The patient was in perfect health, whatever had or had not been removed.

Reform in Coroner Law.—Dr. GIRDWOOD presented the report of the special committee appointed to consider this subject. The com-

mittee considered that the present moment was not an opportune one for bringing the matter before the notice of the Provincial Government.

After some discussion it was decided that the committee be requested to prepare a report, and present it at the following meeting of the Society.

Fibro-Cystic Tumor of the Uterus.—Dr. SMITH exhibited the specimen. In October, 1893, amputation had been done at the level of the internal os. There had been a local peritonitis some months ago. The operation presented no difficulties. The abdomen was not flushed out after operation, contrary to his usual practice. Two days after the operation acute septicæmia developed, and the patient died the following day. An autopsy showed great distention of the stomach and intestines, and Dr. Smith himself subsequently had a severe septic inflammation beginning in the hair follicles of the back of the hand, although no abrasion could be seen. The lesson of the case was always to flush out the abdomen after operation.

Dr. SHEPHERD said that few surgeons flush out the abdomen now-a-days, and he did not himself consider it necessary.

Rupture of the kidney.—Dr. WYATT JOHNSTON showed two specimens of ruptured kidney. One was in a case where an old woman was found dead. There were a few bruises about the head and arms, but no serious external signs of violence. A verdict of manslaughter had been rendered, but the grand jury found a No Bill. It was supposed that the injury was due to the deceased having been maltreated by her son. In the second case the rupture was caused by a beam falling across the loins of the deceased. A diagnosis of ruptured kidney was made during life by Dr. Sutherland, as an area of dullness extended to the umbilicus from the right flank, and the urine contained blood. In this case the injured organ was very large, the other kidney being so small that it was not discovered at the autopsy, although the ureter could be traced for some inches from the bladder.

Operation for Gall Stones.—Dr. SHEPHERD showed a phial containing over 500 gall stones which he had removed three days before from a woman aged 50. She had suffered for many years, and recently had shown signs of peritonitis. An exploratory incision showed a tense gall bladder, which on puncture contained sour pus and was packed with gall stones, which were removed with a dinner spoon, after protecting the surrounding tissues by packing them with sponges. As the gall bladder could not be brought to the opening, the ommentum was stitched to it so as to form a channel for the bile, of which much was passed.

Case of Epilepsy.—Dr. E. P. WILLIAMS read a report of this case which occurred in a young

man 21 years of age. Father and mother gouty, brothers and sisters healthy. When 2 years old had a convulsive seizure followed by transient left hemiplegia. Following this, slight convulsive seizures occurred about once a week, preceded and followed by mental dullness. At 8 years was for a number of days unable to eat or swallow. At 10 years the attacks were preceded by an aura-like epigastric fullness, and he would fall down. At 18 years the frequency of the fits increased to one or two every third or fourth day. Grasping his wrists would sometimes stop an attack. Nitrite of amyl or ammonia inhalations sometimes had the same result. Bromide treatment was continued from the 10th to the 21st year. In Feb., 1893, he had a moderately severe attack of typhoid, during which and until March 15, one week after the fever subsided, no fits occurred. (No bromide was taken during the fever.) During convalescence he had mild fits, at first frequent, afterwards at long intervals, until August, when the fits reappeared, first severe and infrequent, afterwards milder, and at the rate of 20 per month. The general health and mental condition remain good.

Discussion.—Dr. MILLS said that the so-called motor area would soon be regarded as a reflex or sensori-motor area. The fact that the fits could be arrested by seizing the wrist was in favor of this view.

Dr. F. W. CAMPBELL's old opinions varied as to what constituted large doses of bromide. He knew a man who had been taking drachm doses three times daily for 25 years with benefit. He thought nitro-glycerine might be of service.

Dr. WILLIAMS, in reply, said that nitro-glycerine had been tried for some years in this case, but had no apparent effect.

College of Physicians and Surgeons, Quebec.—Dr. J. H. B. ALLAN complained that it was impossible to get a statement of account or a receipt from the College, and that about a year ago the accounts had been sent out in an offensive manner upon post cards.

Dr. F. W. CAMPBELL thought that the irregularities were due to the action of the former secretary.

Stated Meeting, 15th December, 1893.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Dr. A. G. A. Ricard was elected an ordinary member of the Society.

Ticks without absence of Knee-jerk.—Dr. FINLEY exhibited a man who had suffered for some years from attacks of vomiting, with extreme pain in epigastrium. He also had severe pains in lower extremities, usually alternating from one side to the other, and pains over forehead and trunk, described as "just like lightning." There was diminution of sexual

power. No ataxia, but slight muscular weakness. The knee reflexes were exaggerated on both sides. The pupils were slightly uneven, and showed Argyle Roberts in reaction. There was no mental disturbance.

Dr. JAS. BELL thought that the cord area involved could not be that usually affected. Was it right to speak of the disease as ataxia where none existed? A patient who came to him recently, under the impression that he was suffering from stone in the bladder, presented all the symptoms of tabes.

Dr. FINLEY in reply said the disease was probably in the pre-ataxic stage. The Argyle Robertson pupils and lightning pains made it difficult to arrive at any other diagnosis. There was no history of syphilis obtainable.

Congenital Polypoid growth of Conjunctiva.

—Drs. BULLER and ADAMI. The specimen was taken from the ocular conjunctiva of the left eyeball in a child 3 months old, and had existed since birth. These growths occur either as low white circular swellings invading the corneal margin, or as an irregular mass, springing from the sclerotic between the cornea and the outer canthus. The present growth apparently was of the latter, or scleral, variety. Its attachment to the eyeball was by means of a thick expansion extending slightly into the cornea. The growth was removed with as little disturbance as possible of the surrounding tissue. When the patient was removed a few days later, the eye had a satisfactory appearance. The specimen showed under the microscope a well formed epithelium, with corium and subcutaneous tissue. This tissue was loose in the centre and showed a cystic space. The epithelium showed spiral and coiled glands, resembling sweat glands, rather than those of conjunctiva. The subcutaneous tissue showed well formed vessels, with fibrous tissue and what appeared to be degenerated muscle fibres. It corresponded therefore rather with the tissues of the outer surface of the eyelid than the conjunctiva, but was of too simple a nature to be classed as a true dermoid.

Discussion.—Dr. PROUDFOOT said tumors of this kind were commonly attached to the margin of the cornea. Recently in a case treated for some time by the family physician for conjunctivitis he had found a polypus lying beneath the eyelid. Polypi sometimes formed injury in operation of the conjunctiva.

Small pedunculated polyp from the left tonsil.

—Drs. BIRKETT and ADAMI. The tumor was taken from a child 4 months old, and was exhibited owing to the rarity of tonsillar tumors. It was about the size of a pea, and consisted microscopically of a superficial layer of flattened epithelium with subepithelial connective tissue, beneath which were a series of glandular alveoli, separated by fibrous septa. The gland tissue is that of typical mucous glands,

and shows no adenomatous over-growth. No excretory ducts were made out. This class of tumor had been frequently described in the soft palate. Growths of the tonsil of any kind were rare, lymphoid fibrous, myomatous, myxomatous or fatty being the usual forms. Epithelioma was more frequent than sarcoma. The present growth was benign.

Mixed Carcinoma and Sarcoma of the Peritoneum.—Dr. ADAMI showed the specimen from a man who died of peritonitis. At the autopsy an enormously enlarged omentum was found. The mesentery was also involved, but the intestinal tube seemed unaffected except that the coils were matted from inflammation. The diaphragm was thickened and infiltrated with new growth, which had extended to the pleural surface, and set up a severe pleurisy. The pleural cavities contained 9 pints of yellow fluid. Pericardium and lungs free. Death was apparently due to pressure on the heart. Microscopical examination showed the growth to be sarcomatous for the most part, but in places there were definite fibro alveoli, containing solid masses of epithelial cells—in other words, typical scirrhous cancer. There was therefore a combination of cancer and sarcoma. The man was not emaciated, and had almost no disturbance of health up to the time of the acute peritonitis and pleurisy, which caused his death.

Dr. JAS. BELL gave the following history.—On 12th Oct., 1893, the man was suddenly taken at night with severe abdominal pain. One week later he was admitted to the General Hospital, and a diagnosis of acute peritonitis made. Some evidence of an abdominal growth caused his transfer to the surgical ward, where an explanatory abdominal incision was made; but, as the case was unsuitable for operation, the wound was closed. The patient died the next day. Dr. Bell thought the sarcomatous-looking tissue referred to might possibly be an early embryonic stage of the fibrous tissue of the cancer's stroma.

Dr. ADAMI in reply said that conditions of carcinoma sarcomatodes were described by pathologists, when the stroma was sarcomatous and the alveolar contents epithelial. In the present case there was no primary growth in any organ where epithelium would normally exist.

Dr. FINLEY said there was a history of a small growth having been thrice removed from the inside of the nose in the present case.

Dr. JAS. BELL.—That point had been investigated in hospital, but it appeared that the nose was only touched with caustic.

Double Hydronephrosis.—Dr. C. F. MARTIN exhibited the kidneys and bladder of a man who entered hospital with symptoms of chronic renal disease, and died two months later with uræmic coma. There was moderate double

hydronephrosis and dilatation of the ureters. The cause of the hydronephrosis appeared to be a mass of inflammatory fibrous tissue external to the bladder, in the region of the trigone, near the point of entrance of the ureters. This was most marked on the left side. There were also numerous constrictions in the course of the ureters. The left testicle had been removed, and there was a large sinus in the left ischio-rectal fossa.

Dr. JOHNSTON thought the ingenious explanation offered by Dr. Martin to be correct.

Dr. ADAMI said that the statistics of hydronephrosis showed that many cases were recorded when the cause was not explained. Had the dissection made by Dr. Martin in this case been more frequently practised, perhaps there would not be so many mysterious cases on record.

Oxalate of Lime Calculi from the Kidneys.

—Dr. JAS. BELL showed some large stellate prickly crystals, apparently oxalate of lime, removed from a cyst in the kidney of a patient who had no renal symptoms whatever.

Semi-lunar Cartilage.—Dr. JAS. BELL also exhibited a portion of an inner semi-lunar cartilage removed from the knee of a man who had sprained his knee when jumping from a carriage. The joint was locked for a time, but afterward became normal, until a severe exertion once more displaced the cartilage, and the joint was replaced with difficulty. A few days later, while demonstrating how the accident occurred, the joint again became fixed and could not be reduced. The cartilage was therefore removed. It was evident at the operation that it would be impossible to keep the joint in place. Cases have been recorded where the joints have been permanently and satisfactorily reduced after being out for some years.

Enucleation of Thyroid Tumor.—Dr. JAS. BELL showed a small fibro-cystic tumor removed from the thyroid, and emphasized the advantages of enucleation as contrasted with extirpation of the thyroid.

Reform of the Coroner Law.—Dr. ADAMI read the report of the committee upon this subject as follows:

Your Committee, appointed to consider the present system of conducting inquests and the modifications, if any, which may wisely be introduced in the present law relating to inquests, beg to present to the Society the following report:—

The enquiry into and determination of the cause of the death of any individual or individuals, where such death has occurred under circumstances that are out of the common, is a matter that does not come under the cognizance of the Dominion authorities, save and except when the inquest leads to a finding of death by criminal act or criminal neglect.

Hence (with the exception that whenever such a charge is brought, the depositions taken by the coroner must be transmitted to a magistrate or justice of the peace, and the coroner must issue a warrant against the person or persons charged, etc.), the coroner's procedure is a matter outside the Dominion Statutes, and it is in the power of the Legislature of the Province of Quebec to freely modify the existing law. Your Committee desire to draw attention to this fact at the outset, for, this being so, the task of introducing certain urgent modifications, or, indeed, of completely altering the procedure, becomes an easy one, granted that the members of the Provincial Legislature become assured of the need for change.

The present Provincial laws respecting enquiries into the mode and cause of death are based essentially upon the old English Common Law. The enquiries are placed in the control of coroners appointed by the Provincial Government, a coroner for each judicial district. The coroner need not be a member of either the legal or the medical profession, although in the great majority of cases he belongs to one or the other.

Upon receiving notice of a death following upon any act of violence, or of death attended by suspicious circumstances, it is his duty to make a preliminary enquiry.

If, with or without medical aid, he comes to the conclusion that the cause of death is to be made out without the assumption of there having been either criminal act or criminal neglect, he can order the interment of the body. If, on the other hand, he is led to suspect that death has been due to violent or unfair means, or culpable or negligent conduct of others, under circumstances calling for investigation by a coroner's inquest, then, having made a sworn deposition to this effect before a magistrate, he is empowered to hold an inquest. What these "circumstances" are which call for investigation is not defined in our Statutes, they being left to the coroner to determine. Having made the deposition, he now can summon a jury and hold a coroner's court. He is empowered to call before him such witnesses as in his opinion can throw light upon the cause of death.

The jury must view the body of the deceased, and, if the majority of the jury desire it, the coroner is directed to instruct that an autopsy be performed to throw some light upon the cause of death. Having heard all the evidence, the coroner sums up, and leaves it to the jury to bring in a verdict, and, when this has been delivered, the coroner gives an order for the interment of the body.

The coroner is paid six dollars for every inquest, and if any inquest occupies more than two days, three dollars for every succeeding day. The practitioner of medicine making an

external examination of the body receives five dollars, making an autopsy he receives ten dollars. There are further fixed charges for the constable who summons the jury and the witnesses, for chemical analyses, for hire of room to be used for the inquest, and for guarding the the body.

This, put as succinctly as possible, is the present coroner's law for the Province of Quebec.

Several objections have been brought against this method of investigating suspicious deaths; and despite the fact that the law as now administered is much amended, and differs in many respects from the law of a few years back, the objections still retain their force. Your Committee would point out what it considers to be the most serious disadvantages of the present mode of procedure.

1. *The Cost.*—Taking the returns for Montreal alone, as shown by Dr. Wyatt Johnston, the cost per inquest—that is to say, per case—is decidedly greater than in London, New York or Massachusetts. The rate would seem to be \$22.00 in Montreal, \$15.00 in London, \$16.90 Boston, \$12.80 in Massachusetts generally, \$10.00 in New York; and this notwithstanding the fact that autopsies, the most expensive individual item in the investigation of suspicious deaths, from three to four times as frequent in the other cities as they are in Montreal. Here, in Montreal, it costs more to maintain a dead body in the care of the coroner than it does to maintain an ordinary live individual with healthy appetite at a first-class hotel for the same period. Some of the items permitted by law in the coroner's accounts ought to be lessened or removed altogether, others ought to pass into general police accounts. But the fact remains that the system is as expensive as its results are unsatisfactory, and that the chief source of expense is the legal investigation of cases which do not call for legal investigation at all, owing to the fact of death not having been due to violence. The exclusion of cases not calling for inquest by means of a preliminary medical examination seems to be the most rational means of reducing the expenses.

2. *Payment by Fees.*—Your Committee is of opinion that, as a matter of principle, the payment of the coroner according to the number of inquests held by him is most unsatisfactory, and is inimical to the proper carrying out of enquiries into the cause of death.

Your Committee find that of the cases of death calling for a coroner's investigation occurring in the various large towns, from 50 per cent. to 75 per cent. can upon preliminary investigation be found to be due to natural causes. That is to say, the more careful the preliminary investigation made by the coroner, and the more conscientious and expert he shows himself in the performance of his duties, the fewer the

inquests he finds it necessary to hold, and the less his income if he be paid so much per inquest. While if it so happens that his enquiries lead him to suspect the frequent occurrence of any one form of crime at any period, as, for example, child murder, and so to hold an increased number of inquests upon certain classes of cases, immediately he lays himself open to the charge of seeking to increase his income. This ought not to be. In the cities, at least, the coroners ought to receive fixed salaries.

3. *The Jury.*—Under the present system, the jury in Montreal, with rare exceptions, certainly cannot be said to be a capable and representative assembly of citizens. Men engaged actively in any form of business prefer to employ any subterfuge rather than sit for what may be many hours in a morbid atmosphere, for no return whatsoever save discomfort and loss of time. The consequence is that too often the jury is composed of a heterogeneous collection of incapables, gathered from the highways and bye-ways and bar-rooms of the neighborhood. The verdict of such incapables is, time after time, at variance with the evidence presented.

4. *Viewing the Body.*—The custom of viewing the body is as old as the coroner system. It arose at a time when violent deaths were as many as doctors were few, and when population was everywhere so sparse that the jury had an important part to play in determining by external examination that death was due to violence, and, again, in identifying the corpse. Now-a-days, in a large town, it is highly probable that not one of the jury will have known the deceased, and the determination of the cause of death may more safely be left to medical men. In any case, it is easy to obtain identification by means other than the irruption of a strange, unseemly rabble into the house of mourning. The general feeling throughout the community is that this intrusion into the circle of bereaved relatives in the very depth of their trouble, permitted by the present law, ought to be prevented, and your Committee urges strongly that it is as unnecessary as it is unbecoming. It has been superseded in many States by a system of sworn affidavit of the fact of death and the identity of the body, and this course should be followed here.

5. *Suicide.*—The existing law does not demand inquest in cases of *felo de se*. This your Committee, on the whole, is inclined to consider a disadvantage. The general opinion of the community is strongly opposed to suicide, and were it to be recognized that this mode of death necessarily involved a public investigation, there is little doubt that the unpleasant publicity of the subsequent proceedings would act as a deterrent in not a few cases. As a matter of fact, suicide is on the increase in those States where this deterrent does not exist or has of late years been removed.

6. *Medical Evidence.*—A study of the ver-

dicts brought by the coroner's jury, shows clearly that the decision of points of medical evidence is a matter that should not be left to non-medical persons. Statements utterly at variance with the cause of death assigned have been time after time accepted blindly by coroner and jury. The appreciation of medical facts, and the opinions to be formed from these facts, come properly within the domain of the medical expert. It cannot be expected that the legal coroner and the jury should without fail form correct opinions upon delicate medical problems.

Another point with regard to medical evidence may here be brought forward. The practitioner who is called to testify as a physician differs from the other witnesses, from the fact that he is called in his professional capacity. The value of his evidence lies in this, that he has studied the condition of deceased prior to death, and his evidence must depend for its value upon the importance of these earlier professional studies in throwing light upon the cause of death. To this extent, therefore, his evidence is expert evidence, and as such it ought to receive a recompense. But under the the present system no fee whatever is allowed save for external or internal examination of the body of the deceased. The medical practitioner is wrongly treated as an ordinary witness.

Your Committee strongly approves of the plan adopted in many of the United States, of admitting a written medical deposition of fact or opinion as evidenced at inquests in cases where the personal attendance of a medical witness is not considered necessary by the coroner.

7. *The Performance of Autopsies.*—In all the large class of cases now investigated before juries where sudden death occurs without the slightest external lesion, an autopsy is advisable. Nevertheless, with an exception to be presently noted, no autopsy can be performed unless it be demanded by the majority of the jury. That is to say, the jury has to express itself willing to waste an hour or more in the middle of its proceedings, so that an incompetent medical man may be called, who shall make an examination into the state of the viscera. As a consequence, the jury, in the first place, shows the greatest unwillingness to allow the performance of autopsies, and will rather return a wholly unreliable verdict. In the second place, the medical man performing the post-mortem is at a great disadvantage, for he is expected to keep the jury waiting as little as possible, and his examination, instead of being deliberate and careful, is hasty and liable to be imperfect. Your Committee feel assured that were the coroner allowed full power himself to order an autopsy in all doubtful cases, a very large proportion of cases would be discovered in which there would be no necessity for holding an inquest and summoning a jury. Thereby a

very large expenditure would be prevented, and at the same time the cause of death would be satisfactorily established. The exception referred to above is that by the present law the coroner is permitted to order an autopsy if he makes an affidavit that he holds the autopsy to be necessary. Unfortunately, coroners do not seem to have taken advantage of this permission, but prefer to shelter themselves by leaving the matter wholly in the hands of the jury.

A great source of difficulty in connection with the performance of medico-legal autopsies is the absence of any suitable morgue in Montreal, and some measures should be taken without delay to remedy this defect, which also hampers medico-legal investigation in many other ways.

8. *Preliminary Investigations.*—In all cases of suspicious death, the first question to be settled is what has been the immediate cause of death. In all cases, therefore, the first point to be investigated is purely medical. It is true that frequently the question is one that can be answered by any individual endowed with common sense, as, for instance, when a corpse is discovered upon the railroad track minus its head, though even in such cases serious mistakes have occurred through the bodies of murdered persons being so placed as to give an impression of accidental death. But if the question in certain simple cases can be answered by a layman as well as by a professional man, there is a very large number of cases, and these often the most important from a medico-legal aspect, where a correct determination can only be reached by a well-qualified medical man, and where it is all important that a correct answer be gained at the outset, not only for the benefit of the relations of the deceased (that they be sheltered from the heart breath of unnecessary suspicion), but also for the benefit of the Provincial Exchequer, that the Province be not saddled with the cost of an inquest leading to no result. When more than 50 per cent. of all deaths which coroners are called upon to investigate are found to be from natural causes, it is evident that the majority of deaths now investigated require no legal investigation whatsoever, while, on the other hand, as indicated above, all such deaths demand an initial investigation by a medical man.

9. *Criminal Cases.*—Under the existing law, when his jury brings in a charge of murder or manslaughter, or of being accessory to murder before the fact, against any person or persons, the coroner must issue a warrant against such person or persons, and send him or them before a magistrate or justice if this has not already been done. He must at the same time transmit the depositions taken before him in the matter.

To all intents and purposes, the trial before the magistrate proceeds as though no previous inquiry had been held. The coroner's depositions are not employed as evidence. In fact,

the magistrate treats the case as though he were proceeding under an ordinary warrant.

If the magistrate conducts the trial, the case is sent up to the Grand Jury, and then again all the witnesses testify, the names summoned, and the evidence is repeated, and the Grand Jury finding a truth, the case goes before the Petit Jury, and again the evidence is repeated.

It appears to your Committee that this procedure is singularly inefficient, and that, besides harassing the witnesses, it obliges a really large number of lay-jurymen of course, for, usually guilty, upon some legal technicality or faulty observance of legal procedure. Your Committee, considering that the procedure of this procedure may be simplified to a single legal one, does not offer any suggestion on the matter.

Taking all these disadvantages into consideration, and being especially annoyed by the fact that the earliest stages in the investigation of suspicious death must of necessity be of a medical nature, and by the fact that where the legal proceedings of the coroner lead to a definite charge against an individual or individuals, those legal proceedings are practically passed over unnoticed by the higher courts, your Committee have come to the conclusion that a drastic change in the mode of investigation of suspicious deaths is advisable in this Province.

There are two questions which naturally suggest themselves prominently in connection with questions of coroner's reform. The first is, Should the coroner be a physician or a lawyer? and the second, Should the office of coroner be abolished?

With regard to the qualification necessary for coroners, your Committee does not think it necessary to dwell upon the relative advantages of having medical or legal coroners, although this is a subject of dispute which has not been fruitlessly discussed for more than a century, and will in all likelihood continue to be so as long as the coroner system lasts. We wish simply to state the fact of the existence of diversity of opinion on this matter. That there should be any question as to whether a physician or a lawyer would make the best coroner, implies that in either case there must be serious disadvantages. The point at issue here is the same as the question: Can a shoemaker make watches better than a watchmaker can make shoes?

In London, a settlement of the question has been attempted by selecting as far as possible coroners who have obtained both legal and medical qualifications. This plan of expecting the coroner to be a Jack-of-all-trades has not much to recommend it; and the fact that in London, in addition to the doubly qualified coroner, there are the deputy coroners, who are obliged by law to be barristers, and all the

medical expert work is done by outside medical men, shows that matters are not in any way simplified even by having the coroners who are at once both expert and physicians.

The only rational plan, and one whose advantages appear never to have been questioned, is one adopted on the Continent, as well as in three States which now are under the medical system, of separating as far as possible the medical and legal side of the investigation and entrusting those to physicians and lawyers respectively. Your Committee is just as firmly convinced that all legal questions should be left wholly to lawyers, as that all medical ones should be entrusted to medical men.

The Abolition of the Office of Coroner.—Your Committee finds that in those States where this has been done, the previous difficulties seem to have been promptly and permanently removed, and it does not appear to have been necessary in any instance to revive the office. The office of coroner was created in England while that country was in a lawless state, and when public regulations and courts of justice were almost non-existent. Since the development of the judicial and police system, the coroner's office has gradually come to fill the important function of filling the wheel to the car of justice. It has been retained through that conservative spirit which retards the cumbrous system of pounds, shillings and pence for the national currency. Many of the United States are still in that primitive and lawless condition, which makes the office of coroner a useful one. In an more highly civilized States the old coroner system is rapidly disappearing, and it is practically obsolete in five, viz.: Massachusetts, Rhode Island, Connecticut, New Jersey and New Hampshire.

As to whether the office of coroner should be abolished in our own Province, we have no hesitation in stating, as medical men, that, from a medical point of view, the office is simply an absurdity, which constantly interferes with the proper employment of medical science for judicial ends, and that it could be abolished to-morrow with marked benefit to the medical side of criminal cases.

The fact that the appointment of competent medical experts as consultants to the coroner's court of Montreal during the last year has neither prevented nor greatly diminished the number of those palpably absurd and unsatisfactory verdicts, which have made this court a public laughing-stock in past years, shows that something must be radically wrong with the system, which must be remedied, even if this necessitates abolishing the office.

On the other hand, we do not feel, as medical men, competent to decide as to the possible effects which would be produced by this change from a judicial point of view. If the office of coroner were abolished, the legal duties would

have to be provided for in some way, the details of which can only be decided by persons thoroughly conversant with the workings of our criminal law. Furthermore, the abolition of the office of coroner does not appear to your Committee to be absolutely necessary in order to secure the necessary medical reforms. All that is really necessary is to do away with the medical functions and responsibilities of the coroner and to make the office a purely judicial one, only dealing with those cases where there are definite grounds to suspect death from violence or negligence, and these grounds are either strengthened or not removed by the examination of a medical expert.

We would therefore recommend:—

1. That salaried medical examiners be appointed to investigate all deaths occurring under circumstances calling for medico-legal investigation under any Act, and that these officers be given authority to make such medical examination of the body as may be necessary to determine whether death was due to violence or not;

2. That in every case the medical examiners report the result of their examination to the coroner or other judicial officer charged with investigating the legal side of such cases, who, in case of violent death, shall make such investigations and take such measures as are necessary for the proper administration of the law.

If necessary, we are prepared to draft an amendment to the law which would secure the proper carrying out of this system.

(Signed,)

G. P. GIRDWOOD.
J. GEORGE ADAMI.
E. P. LACHAPPELLE.
JAMES BELL.

At the regular meeting of the Society held on Friday, Dec. 15th, 1893, this report was unanimously adopted, and it was resolved that a copy of the report be sent to the Attorney-General and to each of the medical members of the Legislative Assembly and Council of the Province of Quebec.

Dr. BELL thought the Committee had acted wisely in not undertaking to pronounce upon the legal side of the question. Upon motion of Dr. Girdwood it was unanimously resolved that the report be adopted and that copies be sent to the Attorney General and the medical members of the Legislative Assembly and Council at Quebec.

Blood supply of vermiform appendix.—Dr. BELL showed for Dr. Shepherd a preparation showing that the arterial supply of the appendix was due to a single artery which did not anastomose with any neighboring vessels, hence the readiness with which sloughing is produced in the appendix.

Stated Meeting, 29th December, 1893.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Drs. S. F. Wilson and G. H. Raymond were elected members of the Society.

Death Certification.—The Secretary stated that, in reply to Dr. Laberge's inquiry regarding the amendment of the city charter in the matter of death certification, the following resolution, framed by the council and adopted unanimously by the Society, had been communicated to Dr. Laberge, medical health officer of Montreal:—

Resolved—1. That clause 17, title 15 of the charter of the city of Montreal be so amended that all certificates of death must be given by the attending physician, the city health officer, or the coroner's physician;

2. That all such certificates of death be registered with the city health officer, at the City Hall, within twenty-four hours of the death of the person;

3. That no body be buried or received for burial by the superintendents of cemeteries without a permit from the city health officer;

4. That such penalties be enforced as to ensure the carrying out of this law.

Specimens of diseased Uterine Appendages.—Dr. MARTIN exhibited the following specimens of Drs. Alloway and Adami:—

Ovarian Tumor Simulating a Parovarian Cyst.—K. D., aged 30, married, was operated on by Dr. Alloway at the Montreal General Hospital on 16th August, 1893, for the removal of a thin-walled cyst, situated in the left broad ligament, and apparently monolocular. The tumor was removed, together with the left ovary and broad ligament. The appendages on the right side being found diseased, were also removed and ventrofixation performed. Recovery was good. Examination of the specimens by Dr. Adami showed that the tumor, though apparently monolocular, really contained several small accessory cysts. The left ovary was enlarged and the ovarian tissue was directly continuous with that of the main cyst, which was, therefore, evidently ovarian in origin. The right ovary was enlarged and showed numerous dilated graafian follicles forming small cysts, all situated near the surface, and containing in most cases grumous blood-stained fluid. Both tubes were thickened, the right being dilated and containing inspissated purulent fluid. The case was of interest as showing a general tendency to cystic formation of the ovaries.

Hematoma of Left Fallopian Tube.—W. E., aged 34, married, had borne five children, and during the last eighteen months had aborted five times. Since the last abortion there had been a continuous bloody discharge from the vagina. The patient was extremely anæmic, and was too weak to walk. When examined, in

the Montreal General Hospital, there was severe pain in the hypogastric and inguinal regions. A soft movable mass, the size of a fetal head at the 6th month, was felt behind the uterus and to the left. The uterus was anteverted. On 6th September, 1893, the abdomen was opened in the middle line and a small elastic tumor attached to the left broad-ligament found, which proved to be full of blood and clot. The left tube and ovary were ligated and removed with the tumor. Recovery was good. On examination by Dr. Adams, the tumor proved to be a hæmatoma of the Fallopian tube. The external surface of the sac was roughened, inflamed and covered with organized lymph. The inner surface of the sac and contents were carefully examined for foetal or placental structures, but with negative results. The hæmatoma was evidently of chronic growth, and appeared to have developed as a consequence of chronic inflammation and ulceration of the tube.

Dr. ALLOWAY, commenting on the cases, said: It was interesting to know that a cyst of the ovary could become so completely separated from that organ and so simulate a parovarian cyst. In the case of hæmatoma the tube was distended to the size of his wrist, and was ruptured in removal. It so resembled a tubal pregnancy that he was surprised to find no evidence of a foetus, but now believed the bleeding due simply to rupture of the blood vessels during tubal inflammation. There was a history of miscarriage six weeks before the operation.

Doubl. Pyosalpinx with Intestinal Fistula.—Dr. LOWAY also related a case where the appendages were removed from a woman suffering from severe vaginitis and pelvic peritonitis. Blood and pus had passed by the bowel. Both tubes were greatly dilated, the left being fully two inches in diameter and filled with pus which escaped into the peritoneum during the operation. The pus was not fetid, and no bad results followed this accident. The right tube was thickened into a dense rigid cord, passing round the coils of intestine. Both tubes were extensively adherent to the intestine and the entire pelvic contents matted together. Between the fimbriated extremity of the right tube and the bowel was a fistulous opening of the diameter of a five cent piece, which was closed by the Lembert-Czerny method. Another opening was discovered in the bowel where the knuckle of the tube had become adherent. The uterus and omentum were utilized in closing this. The extensive hæmorrhage was arrested by pressure. The pelvis was not washed out. There was no rise of temperature for the first week, when there was a slight rise lasting for some days and accompanied by tympanitis. At the present date, nine weeks after operation, she appeared

on the road of recovery. Nothing more than a local peritonitis appeared to have followed the operation, although some faecal matter must have escaped into the peritoneal cavity. A glass, and later a rubber, drainage tube was used. At first some pus, but no fæces, passed through these. Starvation diet with rectal injection to relieve tympanitis were employed. Pyocetanin and peroxide of hydrogen were used as antiseptics.

Discussion.—In answer to Dr. Gordon Campbell: There was no evidence of fæces passed per vaginam. To Dr. Armstrong: The omentum was simply brought down, not sutured.

Cholecystotomy.—Dr. ARMSTRONG exhibited a large solitary gall stone removed in September, 1893, from a woman aged 42. Ten years ago she had her first attack of severe pain, with jaundice, in Harrogate Hospital, England, when an operation was suggested but declined. Since then she had attacks of biliary colic with jaundice about every six months until the last two years, since when they occurred monthly, lasting two weeks at a time. Pain severe in hypogastrium and right hypochondrium, requiring morphia. The gall bladder contained some pus, its walls were strong and readily sutured, and it was long enough to reach the abdominal wall. On palpation no stone could be felt in the common or cystic ducts. Recovery uneventful, the only unfavorable point being the persistence of the sinus, although there was satisfactory evidence of sufficient bile in the stools. If the loss of bile proved injurious to health, the only operation feasible would be that of establishing a communication between the gall bladder and the small intestine, as has been done in one case by McBurney.

In answer to Dr. Lafleur: She had no febrile attack while in hospital, but said herself that some of the previous attacks made her feverish.

Dr. F. W. CAMPBELL wondered at the excessive pain in this case. Pain usually arose from small stones passing along the duct, and in his opinion comparatively small stones gave him the most pain. It was comforting to think that if serious symptoms of obstruction arose, surgeons could now afford permanent relief by operation.

Dr. LOCKHART recalled an operation he had witnessed on a woman of about 50, when only two stones were found, one of which had two facets, having possibly been turned end for end. The other stones had three facets.

Dr. JAS. BELL thought the contraction of the gall bladder upon a large stone would easily account for the pain. With renal calculi very large stones often caused no pain, while intense agony was produced by very small ones. In one case a large gall stone was passed by the bowel, which must have ulcerated through from the gall bladder.

Dr. ARMSTRONG asked if Dr. Campbell's first attack was more painful than subsequent ones.

Dr. CAMPBELL replied that such was not the case. He thought the pain, as a rule, was only produced when the stones entered the ducts.

Cases of Infection in Pneumonia.—Dr. GORDON CAMPBELL communicated three cases of infective pneumonia in a family as follows:—

My object in presenting this report to the Society is not because there is anything of special interest in the three cases of pneumonia in themselves, but from the apparent dependence of two upon the third for their origin.

Briefly, the history of the three is as follows:—

Case I.—On Sunday, 19th November Mrs. D., aged 30, was seized with a severe rigor, followed by high fever and sharp pains in the right side. I saw her on the 22nd, two days after the onset, and made out the usual signs of pneumonic consolidation of the base of the right lung, and over the dull area well marked pleuritic friction sounds. Temperature 104°, P. 130, R. 36, and a small amount of rusty expectoration. The pyrexia lasted ten days, falling to normal in the course of 48 hours, the termination being accompanied by a profuse diarrhoea. The whole lung ultimately became involved in the pneumonic process, and the resolution is not yet complete 4 weeks after the fall of the temperature.

Case II.—Solomon D., the six year old son of No. 1, was seized with a slight chill on the afternoon of 21st Nov., just 48 hours after his mother. I saw him the following day, and found the early physical signs of pneumonia in the left base. Temp. 103.80°, P. 150, R. 40. Here also in two days the whole lung was involved, but the general condition remained good throughout, although the respirations for 24 hours were 64 per minute. The fever lasted 7 days, coming down to normal the morning of the 29th. Resolution was prompt and complete.

Case III.—Charley D., aged 4, a brother of the last, was seized with the early symptoms on the evening of the 24th, 5 days after his mother and 3 after his brother. This boy had been under my care with bronchitis from the 4th to the 9th of the same month (November). On making my first visit to the above two cases on the 22nd, he was crying with pain in the head and neck, and I examined his chest and found evidence of a general bronchitis, with a temp. of 100°, R. 28; the two following days he was improved, but, as before mentioned, on the evening of the 24th he became rapidly worse, and by the 26th I made out all the usual physical signs of lobar pneumonia, extending from the base of the right lung to an inch above the nipple in front. The

fever here was not so high as in the other two cases, and fell to normal on the fifth day, remaining down one week, then an evening rise was noticed, and he developed an empyæmia, which has been treated in the surgical wards of the General Hospital.

In the first case the cause was considered to be a very rapid fall in temperature, accompanied by a very high wind, to which the patient had been exposed while insufficiently clad. The second case occurred two days later, and he had been in good health up to the time of the onset, and consequently exposed to the same external conditions as his mother. It is to the third case, however, that the most interest attaches, for he had not been outside the house door for three weeks previously, and on my visit I had examined his lungs, and found nothing but a rekindling of the general bronchitis, for which I had already been treating him, and it was not until two days later that the pneumonia developed. The whole family sleep in one room the youngest boy in the same bed with his mother, and consequently there was every facility for infection, provided such is possible, and I think in this particular instance we are forced to the conclusion that Case No. III was contracted from the other two, and in all probability No. II from No. I.

That pneumonia is due to a specific micro-organism is now generally admitted, but cases which can be definitely shown to depend directly upon others are not numerous enough to allow one to neglect putting them on record.

Dr. F. W. CAMPBELL stated that when the theory of the infective nature of pneumonia was first brought out 10 years ago, he found that he and the late Dr. Howard were treating between them seven cases where the disease appeared to have been transmitted by direct infection.

Dr. MERROW had recently had a fatal case of pneumonia in an old man, who was being nursed by his sister. At his second visit the sister was noticed to be breathing fast. She became very ill, and died suddenly a few hours later.

Dr. JAS. BELL had reported a case to this Society ten years ago. A hospital orderly lived in a small upper tenement on Mignonne street, with his wife and wife's brother. The latter came home one day with a very severe pneumonia. Two or three days later the orderly was stricken with pneumonia, and within a few days the wife also took sick with the same disease. The two men died and the woman recovered.

Dr. GORDON CAMPBELL said that what specially interested him was the fact that the youngest child was in the house all the time for three weeks before taken ill, and was, therefore, not exposed to the same condition as the mother.

Danger of Hypodermic Injection of Morphia.

—Dr. F. W. CAMPBELL related the case of an old lady, his own patient, subject to attacks of pleurodynia, for which he was in the habit of prescribing minute doses of opium. In his absence she was seized with severe pain, and a neighboring practitioner who was called in gave her a hypodermic injection of morphia. She went to sleep so profoundly that her friends were alarmed. Next day she was found to be suffering from complete paralysis of the bronchial tubes, and the phlegm went on accumulating until she died shortly afterwards. The relief of pain was not the only object to be considered when suddenly called to see a case. A hypodermic needle may be a two-edged sword, especially when used on the aged.

Dr. W. F. HAMILTON asked whether the patient was suffering from the old attack of pleurodynia or from pneumonia? How much opium was used in the hypodermic injection? and what cause was assigned in the death certificate?

Dr. CAMPBELL did not remember what cause was stated in the death certificate, but thought it had been certified as grippe. She was not suffering from pneumonia the day previous. He did not know the quantity of opium. The patient largely regained consciousness before she died.

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Stated Meeting, 12th January, 1894.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Transient Swelling of the Right Arm.—Dr. JAMES BELL showed the patient, a woman 22 years old, who suffered constantly from a painless swelling of the right arm, extending from just above the elbow to the finger tips, accompanied by slight muscular stiffness of the forearm. There was nothing abnormal in the circulation or innervation of the part. The swelling was first noticed six months ago, and diminished when the arm was kept at rest for a few days, but came on again when she began to use it. An exploratory incision on middle third of radius outer border, made two months ago, revealed nothing unusual. He was unable to make a diagnosis.

Dr. ARMSTRONG had seen the case, and was unable to throw any light on its causation.

Dr. SHEPHERD thought the condition hysterical and due to mechanical obstruction, surreptitiously produced, to the venous circulation.

Dr. WESLEY MILLS thought Dr. Shepherd's explanation possible, and had noticed in talking with the patient that she was very ready to adopt and repeat symptoms suggested to her. Engorgement of the capillaries could, however, also be produced through nervous influence. In nervous persons, according to Dr. West, transient tumors sometimes suddenly appear in the region of the axillary ar-

tery. The present case might possibly be of nervous origin.

Dr. GURD had treated the patient for some time on iron without benefit.

Dr. JAMES BELL thought the obstruction must be mechanical, whether produced voluntarily or by something along the course of the veins.

Ruptured Tubal Pregnancy and Appendicitis.—Dr. ARMSTRONG exhibited a ruptured Fallopian tube with ovary attached. Lying at the bottom of a sort of sac, at the point of rupture, was a small object which appeared to be the foetus. The patient, a married woman aged 34, was the mother of seven children. In August, 1893, she had what appeared to be a mild attack of appendicitis. She made a good recovery after ten days in bed, and remained well till 28th Nov., 1893, when she was suddenly seized with severe abdominal pain and slight diarrhoea, and when seen one hour later was in an extreme condition of shock. On removal to hospital her condition was so much improved that the contemplated operation was not performed, and she was able to return home in ten days. On 5th Jan., 1894, she was suddenly seized with intense abdominal pain, vomiting and slight diarrhoea, followed by collapse, and was operated on to-day (Jan. 12th). Ruptured tubal pregnancy was suspected in spite of the history of appendicitis in August. The abdomen was found, on opening, to be full of blood. The right tube, which was surrounded by clots and debris, was at once ligated and removed. On Dr. Bell's suggestion, the appendix was removed and examined. It was enlarged, and, on opening, a blood clot was found in its centre. The diagnosis was made specially obscure by the fact that the menstruation had not been disturbed, except for a pause of a week after the commencement of the October period. The flow was then resumed, and went on to its normal term of 4 or 5 days. Although the pathology of ruptured tubal pregnancy has been known since 1814, it is only 11 years since Tait performed his first operation, since which time he has operated on 33, saving all but one, his first case. This fatal result Tait attributed to his neglecting to tie the bleeding tube before cleaning out the abdomen. Intra-peritoneal hæmatocoele is specially dangerous, as the blood does not clot, but goes on escaping unless relieved by the surgeon. Extra-peritoneal cases were much less dangerous. Dr. Armstrong thought the abdomen should be opened in every case of collapse following severe abdominal pain.

Dr. GURD referred to a case of his, where Dr. Gardner had operated. The pain was intense. The clot resembled black currant jelly. The case recovered.

Dr. ENGLAND mentioned a case seen with Dr. Armstrong, when the presence of blood in

the abdomen had been diagnosed from the dull note in the dependent part of the abdomen. The perforation was situated near the uterus. Recovery was good.

Dr. LAFLEUR had seen a case at the Johns Hopkins Hospital where the presence of blood was revealed by aspiration. Upon operation, the case proved to be a ruptured tubal pregnancy complicated with chronic ulcerated appendicitis.

Dr. GORDON CAMPBELL had seen Dr. Armstrong's case one hour and a half after the commencement of the first attack. The pain was pretty high up, a little to the right of the umbilicus. There was no dullness or tumor.

Dr. WESLEY MILLS—Intra-venous injection appears to be indicated when collapse is severe.

Dr. ARMSTRONG, in reply, said that in his experience dullness and tumor were only met with in extra-peritoneal cases; when the primary rupture is intra-peritoneal, the blood is diffused between the coils of intestine.

Intra-Capsular Fracture of the Femur in a Paralyzed Limb.—Dr. JAMES BELL exhibited the specimen, and related the history of a man 68 years old, who had been the subject of infantile paralysis. The fracture occurred in the paralyzed limb. After eight weeks' treatment by extension with the long splint he was about to be discharged, as there was no hope of restoration of function in the originally useless limb. He contracted a pneumonia, and died nine weeks after the accident. The bone did not show the slightest attempt at repair. In a normal state of nutrition considerable attempt at union would be expected after nine weeks immobilization. Absence of union in this case was doubtless due to the paralysis. Dr. Bell thought that even in very old patients sufficient union to ensure a serviceable limb is to be hoped for, and disapproved of the advice given in text-books to make no attempt at treatment if very old. In one case of his a lady, aged 94, recovered sufficiently to walk about after nine or ten months.

Dr. ARMSTRONG referred to a case in his practice, when a lady 92 years old got sufficiently well to walk about, though no treatment at all was attempted. He asked if Dr. Bell had ever seen bony union in these cases.

Dr. SHEPHERD thought that the cases which got well were those where impaction was present. It is in cases where manipulation for purposes of diagnosis is employed that the patients never get well, as the impaction is thus broken up. Manipulation should never be used in such cases.

Dr. F. W. HAMILTON had been present at the autopsy on Dr. Bell's case. There was a purulent arthritis of the joint.

Dr. BELL fully agreed with Dr. Shepherd's remarks. He had not seen many specimens of bony union in old persons.

Dr. MCGANNON did not see how a diagnosis could be made without manipulation. He had resorted to it in the case of a woman of 58, and after treatment of a plaster of Paris bandage had secured good union.

Dr. GORDON CAMPBELL referred to Treves sign of a lax condition of the fascia lata on the affected side, as being of great value in the diagnosis of intra-capsular fracture.

Dr. SHEPHERD thought that a diagnosis could be made by observing the relation of the trochanter to Nelaton's or Bryant's test lines. He would rather make an error in diagnosis than run the risk of crippling the patient for life.

Copper Nugget in the Form of a Skull-Cap.—Dr. JAMES GUERIN showed this specimen, found in the Calumet Mines, 4,200 feet below the surface. It was stated that near it were found two other pieces of copper, one having the outline of a foot, the other that of a tibia, according to the description of a medical man. The resemblance to a skull was very striking; but if it was a skull, how did it get there, and why was it converted into copper?

Dr. GRIDWOOD thought the specimen merely a piece of copper ore.

Case of Belladonna Poisoning.—Dr. Elder was summoned on 23rd Dec., 1893, to see a woman aged 45, who was stated to have suddenly fallen in a fainting fit while at breakfast. She was lying down. The face was suffused. There was intense throbbing of the vessels of the neck. The pupils were so dilated that scarcely any iris could be seen. Belladonna poisoning was at once suspected, especially as a liniment of equal parts of extract belladonna and glycerine was being prescribed for another member of the family. It transpired that by mistake a dessert spoonful of this had been taken. A few moments later she said that her eyes "felt as if dropping out." She soon became unconscious. Her stomach, which was nearly empty, was thoroughly evacuated with the stomach pump and washed out with four quarts of water. Afterwards half a grain of morphia was given hypodermically, which promptly contracted the pupils. The pulse was at first 160 and breathing rapid, afterwards the pulse became slower but weaker, and breathing deeper and stertorous. Hypodermics of brandy and ether were employed as stimulants. At times respiration almost stopped, but would revive upon pressing the epigastrium. At 3 p.m., at suggestion of Dr. Blackader, $\frac{1}{30}$ gr. nitrate of strychnine was given. At 6 p.m. she had recovered consciousness and was able to pass her urine. After this her recovery was rapid. On the following day, while breathing near her husband's eyes, he declared that he suddenly became blind. His pupils were certainly dilated, possibly from absorption of the drug exhaled by the patient's lungs. One of the hypodermic punctures produced a slough.

Dr. BLACKADER thought the recovery due to the prompt treatment and the nature of the mixture. The presence of so much glycerine would delay absorption. There was not an exact antagonism between opium and belladonna, and the use of either as an antidote for the other should be made very cautiously for fear of an overdose, as both opium and belladonna in large doses acted as cardiac and respiratory depressants. Dr. Wood thinks that the consecutive use of several drugs having the same action is preferable to a single physiological antidote. He did not advise the use of pilocarpine in the present case, as it would not stimulate the respiratory centre. We have no drug which will exactly cover the symptoms of another drug.

Dr. DECOW mentioned a case of poisoning by cedar oil, where the symptoms were weak pulse, unconsciousness, rigidity of the muscles of the jaw, and epileptiform convulsions. The stomach was emptied, and hypodermics of ether and brandy given. One case of this form of poisoning has been recorded.

Dr. F. W. HAMILTON related a case of belladonna poisoning when a dose of belladonna liniment was given by a nurse. An emetic of mustard produced prompt emesis. Two hours later the only symptoms remaining were slight dilatation of the pupils and dryness of the throat.

Dr. PROUDFOOT referred to a case of belladonna poisoning from application of atropine to the conjunctiva. Personally he once by mistake took an overdose of belladonna and bromide mixture while suffering from whooping cough. Blindness, giddiness and faintness came on, but passed off in three hours without treatment.

Dr. GIRDWOOD asked Dr. Elder if there was suppression of urine.

Dr. WESLEY MILLS reported some mild cases of atropine poisoning which had recovered without treatment. In one chronic case polyuria was noticed. In the dog's heart, atropine prevents vagus inhibition, and pilocarpine restores that function. Further experiments upon the antagonism of the two drugs were needed.

Dr. GORDON CAMPBELL had seen a case of poisoning in a child from application of atropine to the conjunctiva.

Dr. ELDER, in reply.—The quantity of urine was not measured. There was no suppression. The symptoms may have been modified by the morphine given. There was no rash on the skin and no delusions. Until the physiological action of atropine was experimentally worked out, the treatment of such cases must remain experimental.

Stated Meeting, January 26th, 1894.

DR. JAMES BELL, PRESIDENT, IN THE CHAIR.

Suture of Tendons of the Hand.—Dr. BELL exhibited a man on whom he had operated four weeks previously. The patient had fallen through a plate glass window and cut the tissues of the palm and wrist severely, the superficial and deep flexor tendons as well as the ulnar vessels and nerves being severed. Owing to an interruption, the divided ulnar nerve was overlooked at the time. The wound was therefore re-opened next day and the nerve sutured, perfect sensation in the fifth and inner side of the ring finger being obtained. Sufficient movement was now present in the hand to show that the action of the tendons was fully established. In repairing the injury, the superficial and deep tendons had been sutured separately, but Dr. Bell believed the result would have been just as good had the cut ends simply been united *en masse*.

Fidititious Urticaria.—Dr. GORDON CAMPBELL showed a man in whom he had detected this condition accidentally while examining the chest. The slightest scratch brought out distinctly raised reddish wheals within less than five minutes. This was demonstrated before the Society. The condition was most marked in the skin of the back, but was also present over the chest, abdomen and limbs. Dr. Campbell stated that the rareness of this condition was probably largely owing to the fact that, as in the present case, the patients were not inconvenienced by it, and therefore not aware that they suffered from it, and it was only discovered by accident.

Dr. FOLEY considered the disease one of the commonest skin affections.

Dr. ORR asked if the patient had shown evidences of being subject to the ordinary nettle rash.

Dr. CAMPBELL replied that the man was not aware that he ever had any skin disease at all.

Induction Coil for Utilizing the Ordinary Electric Light Current for the Thermo-Cautery.—Dr. LAPHORN SMITH exhibited an apparatus invented by Mr. Shaw and manufactured by the Montreal Electric Company.

The instrument can be connected with the socket of any incandescent lamp by simply screwing in a plug. The current can be regulated with ease, and arranged so as to heat the platinum knives or loops to any degree required. There was no possibility of dangerous electric shock being given. The apparatus was very cheap, costing only \$20.00, the current costing 1½ cents per hour. The apparatus had been employed with satisfactory results for the last two years by several Montreal physicians, but not being aware of this, Dr. Smith had nearly invested in a much more expensive apparatus made in New York, and

so wished to save other members incurring a useless expense.

Dr. SHEPHERD read a paper upon "The Curative Effect of Exploratory Laparotomy," which is as follows:

It has been known for years that in certain cases the mere performance of abdominal incision has some remarkable effects on growths and other conditions of the abdomen. This has been widely recognized especially in cases of tuberculosis of the peritoneum. In 1889, Mr. Lawson Tait (*Edinburgh Medical Jour.*) drew attention to the fact that certain diseases of the abdomen seem to yield to surgical treatment applied to them by accident, and that he had more than once seen tumors, often of large size, disappear after a mere exploratory incision. These cases he reported at the time, but his statements were not believed. The cases in which he had seen tumors disappear in this way were chiefly in connection with the liver, spleen and head of the pancreas. From the number of cases of this kind observed by him, Mr. Tait is satisfied that the disappearance is not a mere coincidence, but that the opening of the peritoneal cavity has a direct influence in setting up the process of absorption of the tumor. Everyone knows that after the smallest wound of the peritoneum, an intense thirst is set up, which lasts for some days, and that this thirst is not set up after opening any other serous cavity, or in wounds of the abdomen where there is no injury of the peritoneum. Mr. Tait relates a number of remarkable cases in this paper. One case particularly deserves mention. A lady, æt. 54, had an abdominal section performed for supposed gall stones or possibly cancer of the liver. The liver was found covered with large, hard nodules, one of which closely imitated the lump which had led to the diagnosis of distended gall bladder. The case had so much the appearance of malignant disease, that no hopes were given of her recovery. Contrary to expectation, however, the patient completely recovered, and was alive and well several years after. A number of other cases are also given. In no less than three out of four cases of greatly enlarged spleen, tumor disappeared without more being done than opening the abdomen and examining the growth, and in one case of tumor of head of pancreas, with great emaciation, exploratory incision resulted in entire disappearance of the tumor in five or six weeks, and complete restoration to former health. In the case of supposed cancerous nodules of the liver, the evidence would have been much stronger had Mr. Tait excised a portion for microscopic examination. It is hard to believe that there was malignancy in any of the cases, but the fact remains that the gross clinical appearances were those of malignancy, and that the

observers were skilled in recognizing the normal appearance of the organs. It is possible that some of the lesions may have been due to syphilis. In 1891, Dr. J. White, of Philadelphia, published in the *Annals of Surgery* an interesting and exhaustive paper on the "Curative Effects of Operation *per se*," and came to the conclusion that epilepsy, certain abdominal tumors, peritoneal effusions, and also tubercle were benefited by these operations, and though one of the possible factors was anæsthesia, also psychical influence, relief of tension and reflex action may enter into the therapeutics of these cases. He does not think accident or coincidence explains them.

Pierre Delbet (*Bull. de la Société Alchimique de Paris*, Oct. and Nov., 1892) reports the case of a child, æt. $2\frac{1}{2}$ years, whose health had been failing for some months. On examination, a large, smooth, firm tumor was found on the right side of the abdomen extending from the costal cartilages to the iliac fossa. The diagnosis of sarcoma or carcinoma of liver was made. An exploratory operation was performed, and the tumor was found to be an enlarged right lobe of the liver, pale in color, with violaceous marblings. Enlarged glands were found in the hepatic omentum. Punctures were made, but revealed nothing. The result was immediate and surprising; in three days the child regained appetite and cheerfulness, the liver rapidly decreased in size and returned to normal in two months. The character of the enlarged liver was revealed later, when syphilitic gummata appeared on forehead and scalp.

Dr. Wm. White in the elaborate article in the *Annals of Surgery*, referred to above, cites many cases where exploratory abdominal incision relieved symptoms of pain, vomiting, etc., and also some cases of tumor, which shrank away after operation, although at the time the operator considered them malignant and gave a hopeless prognosis.

Prof. Von Mosetig, of Vienna, in 1888, showed a case where he had performed exploratory laparotomy some time before for a tumor which filled the whole pelvis; it was quite fixed, and removal was not attempted, so the wound was closed. To his surprise, when examined, 14 days later, he found the tumor had shrunk to half its former size, and it continued to diminish, so that when shown to the Imperial Society of Physicians at Vienna, it was no larger than a man's fist. He thought the disappearance might be due to the intense hyperæmia observed during the operation; in the same way sometimes sarcomata may disappear under the influence of severe erysipelas. Cases also occur where, for a time, in malignant cases great improvement takes place as the result of exploration, but these cases always relapse and the patient soon succumbs.

In this connection I shall now relate a case of which I had personal experience. It is as follows :

In October, 1891, I was consulted by Mrs. B., a nurse, æt. 28, spare in habit and of a sanguine temperament, for a tumor she had recently felt in the neighborhood of the umbilicus. She had always been healthy, had been married, and was the mother of one child æt. 8 years. Never had any miscarriage and no history of syphilis. No tuberculosis in family, never had any jaundice, nor had she ever had anything like severe colic. For some time has not been feeling well and not up to her work ; has frequent elevations of temperature and occasional sweats ; her appetite good, and there are no symptoms pointing to any affection of the stomach, no vomiting or dyspeptic symptoms.

Notes of Examination.—On examining her in the recumbent position, a tumor the size of an orange is felt to the right and a little above the umbilicus. This tumor is smooth, very tender to the touch and moves with the respirations. It can be pushed to the left side, under left costal cartilage, and to the right apparently under the edge of the liver. In fact, the tumor is very freely movable. Occasionally the tumor is very painful, and it is always tender to the touch. I did not examine her again until Dec. 20th, as she had in the meantime gone about her nursing duties in the hospital, but these she soon found too much for her, and she was compelled to take to her bed. Her temperature was carefully registered and she was closely observed. Her temperature was always 101° at night and 100° in the morning. Every other day she had a severe sweat. She said she felt more comfortable up than in bed, for then she had her corsets on, and these when tightly laced kept the tumor in its place. On examining her waist, a well marked line of constriction was seen to pass immediately above the tumor when it was in its normal position. It was thought that the tumor was caused by a lacing lobe of the liver, with probably an enlarged gall bladder beneath. Not getting any better, and being anxious to have something done, she consented to an exploratory incision.

Operation, Dec. 23rd, 1891.—An incision was made in the median line above the umbilicus, and the left lobe of the liver was immediately come down upon. On examination, a portion of this lobe was seen to be quite abnormal in appearance and very definitely marked off from the healthy part by a distinct line. This abnormal portion of the liver commenced at the great fissure where the round ligament entered, and extended upwards to a furrow, corresponding to a lacing furrow, and to the left it reached to the edge of the left lobe, where the lateral ligament leaves the liver. This portion was

thick, somewhat puckered on its surface as if from cicatricial contraction. It was of a deeper color than the rest of the liver. A needle entered into the cicatricial part with difficulty, but in other parts no resistance was offered to the entrance of the needle. On holding the lobe between the finger and thumb, well marked nodules, like masses of new growths, were felt. Adherent to this part of the liver were some portions of omentum. On removing these, the liver bled freely, and hæmorrhage could only be stopped by application of the cautery ; indeed, this abnormal portion differed from the ordinary cirrhotic lacing lobe in that it was exceedingly vascular. There was some intention of removing this diseased portion of the liver, but it was decided not to do so, because the pedicle was so broad and the parts were so vascular, so the wound was closed.

The patient after operation had some pain for 24 hours and distension, but went on to an uneventful recovery. After the exploratory incision she had no more tenderness, and after the first day no more pain. Her sweating ceased and her temperature became absolutely normal. On examining her a few weeks after operation the tumor could still be felt, but it was immovable. She soon returned to her work and complained no more,—in fact, she was perfectly cured, and when last heard from, some short time ago, she was in perfect health and able to perform all her duties as superintendent of a hospital. The tumor disappeared within a year of the operation—or at least could not be felt.

Thinking the case might be of specific origin, I put her on potassium iodide for some time, which may have had something to do with the disappearance of the tumor.

(To be Continued.)

Progress of Science.

A MECHANICAL DEVICE FOR ILLUSTRATING THE MOVEMENTS OF THE LUNG IN PENETRATING WOUNDS OF THE CHEST.

Dr. Andrew H. Smith, of New York City, showed before the American Climatological Association an apparatus which consists of two bellows, operated by a handle common to both, representing the thoracic cavities, and each containing an elastic bag representing the lung. The top of each bellows is of glass. A slot on each side, covered by a slide, represents a wound of dimensions variable at pleasure. Tubes representing the bronchi and trachea connect the two bags. With the slot of one side wide open and the bag on that side disconnected from its fellow, it is seen that the

movements of the bellows are without effect upon the bag. But when the connection is re-established, it is evident that the bag receives air from its fellow when the handle is depressed, and that it collapses when the handle is lifted, its movements being exactly the reverse of those of the bag on the other side. When the device representing the glottis is partly closed, this reverse movement is very marked.—*International Medical Magazine*, February, 1894.

CONSERVATIVE TREATMENT OF PYOSALPINX.

Kollock (*International Medical Magazine*, February, 1894) calls attention to the changes made in the treatment of pyosalpinx within the last year or two, and mentions cases treated by the conservative method which have been reported by Polk, Pryor, Krug, Bo. dt and Dudley.

He claims that by this method the tube and ovary of the non-affected side and also the diseased tube may often be saved. He says further, "My experience, while limited compared to that of others mentioned, has been sufficient to convince me that the conservative system of practice is bringing us to that period when the mutilations of women, once supposed to be necessary, should cease. This, we think, will be accomplished; as we also believe that abdominal surgery, in the hands of such men as Sanger, Porro, Kelley, Price, and others, will put an end to the barbarous and murderous practice of resorting to craniotomy and embryotomy on the living fetus."

He then reports four cases of pyosalpinx, three of which were entirely relieved without resorting to coeliotomy.

TUBERCULOUS PLEURISY.

J. H. Musser contributes notes on six cases of tuberculous pleurisy. Some of the different modes of onset are given: 1. By a series of acute attacks; 2. Acute bilateral pleurisy with effusion; 3. It may develop insidiously, or secondary to genital tuberculosis. He distinguishes tuberculous pleurisy from pulmonary tuberculosis by the amount of pleuro-pulmonic invasion, by the age, absence of extreme hectic and extreme emaciation, by the character of the sputum and absence of bacilli, by the unproductive cough, extreme chest pain, and chest deformity.

The writer considers that "It is always cheering to make out tuberculous pleurisy when in the midst of much pulmonary tuberculosis. First, the probability of a cure is very much greater than in other forms of tuberculosis. Second, a partial cure can be promised in many

cases. Then the progress is slow, and hence the duration of life much greater than in pulmonary tuberculosis. The symptoms of the terminal stage are, however, more distressing. The dyspnoea, the breast pang and chest constriction, the internal suggestions of dragging or pulling, as upon organs, are agonizing to witness. The harassing cough is most weakening to the patient. Tuberculous peritonitis, of sluggish type, adds to the severity of the terminal symptoms."—*International Medical Magazine*, February, 1894.

RESTRICTING AND PREVENTING THE SPREAD OF TUBERCULOSIS.

Dr. Hermann M. Biggs summarizes his report to the New York Board of Health on Tuberculosis as follows:

1. Tuberculosis is a contagious disease, and is distinctly preventable.

2. It is acquired by direct transmission of the tubercle bacilli from the sick to the well, usually by means of the dried and pulverized sputum floating as dust in the air.

3. It can be largely prevented by simple and easily applied measures of cleanliness and disinfection.

The Sanitary Committee recommended that the Board adopt the following resolutions:

Resolved, That this Board urge upon the hospital authorities of the city of New York the importance of separation, so far as possible, in the hospitals of this city of persons suffering from pulmonary tuberculosis from those affected with other diseases, and urge that proper wards be set apart for the exclusive treatment of this disease; and be it further:

Resolved, That the Commissioners of Charities and Correction be recommended to take such steps as will enable them to have and control a hospital to be known as "The Consumptive Hospital," to be used for the exclusive treatment of this disease, and that as far as practicable all inmates of the institutions under their care suffering from tuberculosis be transferred to this hospital.

This movement of the Board of Health of New York City is a splendid step in the right direction. It is a crying shame and a disgrace to this age of medicine, believing as doctors do in the contagiousness of tuberculosis, allowing cases of bronchitis, pneumonia, typhoid fever, and all other so-called medical cases to be treated in the same ward as the tuberculous patients. If a separate hospital cannot be supplied, at least separate wards should be used by tuberculous subjects. A small hospital located on one of the knobs to the south of Louisville would be a great place for tuberculous patients. Out-door occupation allied with pure air would go far to aid any plan of treatment put into practice for their benefit.

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MONTREAL, MAY, 1894.

THE UNIVERSAL LANGUAGE OF THE FUTURE.

The necessity of having one language that would pass current among scientific or learned people all over the globe was discussed at a recent meeting at the New York Academy of Medicine, when one gentleman read a paper on the advantage of Greek as a universal language. While we cannot agree with him on either of the dead languages Greek or Latin, we are heartily in favor of either French or English, as, practically speaking these two languages are in daily use throughout the world. English of course is already an almost universal language, it being the language of North America, the British Isles, Australia, New Zealand and a large portion of India. All that would be required to make it entirely universal would be for the government of each country to exact that English be taught in the public schools, in addition to the mother tongue: thus in Russia, English and Russian; in Germany, English and German; in France, English and French; in Italy, English and Italian, and so on. We could thus meet as scientists of any profession and have a common language, familiar to all. English is not only the most used language in the world, but it is the language of commerce, and thus is understood wherever the ships of Great Britain or America trade. It is the language which could be made universal with the least expenditure of effort, very different from the acquirement of

Latin or Greek, which would be a herculean task. The necessity for some such arrangement was very forcibly demonstrated at the recent Congress in Rome, where we see by our exchanges that only papers read in Italian received a hearing. We presume the same thing will happen in Russia, so that these International Congresses will degenerate into national ones, and thus the principal object, namely, the interchange of medical thought, will be completely lost sight of. Instead of having four official languages, we trust that the next Congress will only have two, namely, English and French.

BOOK NOTICES.

LECTURES ON AUTO-INTOXICATION IN DISEASE, OR SELF-POISONING OF THE INDIVIDUAL.

By Ch. Bouchard, Professor of Pathology and Therapeutics, Member of the Academy of Medicine, and Physician to the Hospitals, Paris. Translated, with a Preface, by Thomas Oliver, M.A., M.D., F.R.C.P., Professor of Physiology, University of Durham; Physician to the Royal Infirmary, Newcastle-upon-Tyne; and Examiner in Physiology, Conjoint Board of England. In one octavo volume; 302 pages. Extra cloth, \$1.75 net. Philadelphia: The F. A. Davis Co., publishers 1914 and 1916 Cherry Street.

Death frequently carries off in a few hours or days individuals who are in the prime of life and in apparent good health, and at whose post-mortem the most careful examination fails to reveal alterations of structure such as can explain the fatal stroke. Epidemics, not of a specific character, but traceable to poisoned water or food, have unexpectedly appeared in certain neighborhoods; or members of a marriage party have died without much warning, death being attributed, and very properly, to some article of diet partaken of at the wedding-feast. These are the cases that have aroused public opinion and awakened professional interest in a subject toward the elucidation of which the pathological chemist has vied with the bacteriologist.

Bouchard, in his "Auto-Intoxication," clearly indicates to us that man is constantly standing, as it were, on the brink of a precipice; he is continually on the threshold of disease. Every moment of his life he runs the risk of being overpowered by poisons generated within his system. Self-poisoning is only prevented by the activity of his excretory organs, chiefly the kidney, and by the watchfulness of the liver, which acts the part of a sentinel to the materials brought to it by the portal vein from the alimentary canal. Disease is not something

altogether apart from the individual. The patient and his disease are too often found living under identical conditions.

A very interesting chapter is the one on auto-intoxication as a cause of mental diseases. We have more than once called attention in our editorial column to the relation of constipation to slight forms of mental disease. Altogether the book is rich in explaining the causes of disease and the antiseptic treatment of them.

THE JOHNS HOPKINS HOSPITAL REPORTS. Vol. III., Nos. 7, 8, 9. Report in Gynæcology, II. Baltimore: The Johns Hopkins Press, 1894.

These reports, contributed in the main by Howard Kelly, admirably illustrated, and with tabulations which show how minor a detail is expense in the publications of Johns Hopkins Hospital, are deserving of high praise, as showing the clinical methods of a keen, skillful expert, and as illustrating his ingenuity in combating complications and new conditions as they arise in the course of his practice. The readers of current literature are already familiar with the value of these papers, as they have appeared elsewhere.

Kelly describes his method of measuring the conjugata vera by external direct method, and, by comparison with internal measurements, shows that there is not a difference sufficiently great to be of any practical importance. The illustrations show the method at a glance.

The possible errors in diagnosis from deviations of the rectum and sigmoid flexure associated with constipation are pointed out. It is shown that such abnormal position is especially prone to be associated with fecal stasis. A number of cases are illustrated, showing how readily the tumor incident to this condition may be mistaken for diseased conditions of the parametrium, tubes, or ovary. This article is extensively illustrated.

Forty-five cases of operation for the suspension of retroflexed uterus are reported, all recovering. The author states that there are two distinct classes of patients in which the operation is applicable,—first, in young nullipara suffering from pelvic pressure, backache and dysmenorrhea, in whom the retroflexion has existed for a number of years; second, in multipara in whom the retroflexion is acquired. Not only was there recovery, but in nearly all cases very great improvement in general condition.

Mary Sherwood contributes a paper upon "Potassium Permanganate and Oxalic Acid as Germicides against the Pyogenic Cocci," showing that permanganate alone in saturated solution will not destroy the staphylococcus pyogenes aureus. With oxalic acid at a temperature of 40° to 45° C., sterilization of infected threads by an exposure of one minute to its action is accomplished.

Slaveley reports a number of complications occurring in cases of abdominal section through the presence of intestinal worms. Six cases are recorded, one resulting fatally. In all, reflex disturbances were most marked.

Under the head "Gynæcological Operations not involving Coeliotomy," eight hundred and thirty-eight operations were performed on six hundred and thirty-one patients. There is an elaborate tabulation of these cases.

One of the most ingenious contributions is an article upon the employment of an artificial retroposition of the uterus in covering extensive denuded areas about the pelvic floor. Six cases are cited.

Murray writes a useful article upon "Photography applied to Surgery."

Russell presents the result of his work in urinalysis in gynæcology.

Robb insists upon the importance of employing anaesthesia in the diagnosis of intra-pelvic conditions, and proves his points by an analysis of some two hundred and forty cases.

Kelly describes his method of direct pressure for the resuscitation of persons from chloroform asphyxia. This seems to offer no advantages over methods already practised, and does not absolutely provide for the patulousness of the respiratory tract in so far as the mouth and nose are concerned.

One hundred cases of ovariectomy performed in women over seventy years of age are tabulated; twelve cases died. Of the three patients over eighty, all recovered. There is a tabulation of abdominal operations performed at the Gynæcological Department from March, 1890, to December, 1892. The operator calls attention to the fact that at first drainage was frequently used, but towards the last has been almost completely abandoned, the glass tube being given up altogether in favor of gauze. Over five hundred cases are recorded.

A record of deaths occurring in the Gynæcological Department is appended,—first, deaths without operation; next, deaths following gynæcological operation.

These reports are most valuable, not only because of their direct teaching, but because they illustrate how the immense material of a large hospital can be best utilized for the general education of the profession.

PAMPHLETS RECEIVED.

A SUPPLEMENTARY PAPER UPON SUPRA-VAGINAL HYSTERECTOMY, by the new method, with report of additional cases. By B. F. Baer, M.D., Professor of Gynæcology in the Philadelphia Polyclinic and College for Graduates of Medicine, etc. Reprinted from Transactions of the American Gynæcological Society, Vol. XVIII., 1893.

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Original Communications.

MEDICAL EVIDENCE.

*A Paper read by ROBERT MARK, M.D.,
F.R.C.P.S.K., Coroner, Ottawa, before
the Rideau and Bath-hurst Medical
Association.*

Mr. President and Members of the Rideau
and Bath-hurst Medical Association:

In response to an invitation from our
esteemed Secretary, I beg to submit a short
paper on Medical Evidence.

The giving of *evidence* dates from a very
early period in the world's history, when
by legal enactment individuals were dis-
allowed to take the law into their own
hands, but were required to bring their
case before a judge; where the accuser,
the accused and the witnesses met face to
face, and the judge passed sentence accord-
ing to the evidence.

Since June 15, 1215, when King John
gave to his people the great Magna Charta,
trial by jury has been the privilege of all

under British rule, under which arrange-
ment the *judge* is obligated by oath to pass
sentence according to the verdict of the
jury; and the jury are sworn to bring in a
verdict, without fear or favor, according to
the evidence; and the *witness* in the solemn
presence of Almighty God, pressing the book
of Holy Writ to his lips, swears he will tell
the truth, the whole truth, and nothing
but the truth.

Ordinary witnesses are only required to
state facts of which they have a personal
knowledge, but upon *skilled* and *scientific*
witnesses *weightier responsibilities rest*;
their opinions are often *demand*ed to eluci-
date matters that are obscure to the ordi-
nary mind.

The medical witness enters upon his
work of investigation, realizing the solemn
responsibilities that rest upon him not only
to present naked facts, that would impress
the mind of the most casual observer, but
to unearth hidden facts essential to a
right understanding of the case, and place
them in an understandable form before the
public mind.

He is obligated to tell the truth, the *whole* truth, which demands the exercise of all the power he possesses to ascertain *all* the facts bearing on the case that it is possible for *him* to reveal; a lack of fidelity on his part may lead to the escape of the guilty or the infliction of punishment upon the innocent.

On the 10th of October, 1890, I received a telegram from the Crown Attorney of Prescott and Russell, dated Cumberland,—the scene of the noted murder of Mary and Eliza McGonigle—saying: “Wanted—come at once, to make post mortem examination.” On reaching Cumberland, I was met by the Crown Attorney and Provincial Detective Grier, and in the *name* of the *Crown* was specially requested to put forth every exertion, so that by my medical evidence I should aid the Crown in a righteous conviction of the guilty party.

Associated with Dr. Fergusson and Dr. Janson I made a post mortem examination on the bodies of both girls:

Mary apparently about 14 years of age, and Eliza 12 years.

Mary—From a superficial examination I found on the left side of the crown of the head a cut about 1 inch in length; it penetrated the periosteum of the skull. The skull was not fractured. Under the right eye there were two cuts; the upper was transverse, about $\frac{3}{4}$ inch long. I found it, deepest nearest the eye; the lower cut was oblique, and about $1\frac{1}{8}$ inch long, in form the same as the one above. The cuts on the scalp and face were made by some blunt cutting instrument, similar to wounds I have found in my surgical practice made by a man breaking a heavy water jug on the head of a woman, and another case where the head and face were cut with a lathing hammer. Stones with very sharp edges were found near the bodies.

On the neck of Mary there were deep red discolorations, intensified immediately over the windpipe, on both sides; the small-

est discoloration was on the right side, as if made by a human thumb. Discolorations on the left side were more extensive, as if made by human fingers. Eliza had precisely the same mark on her throat, only they were apparently made by the left hand.

The trachea yielded easily to the touch; the hyoid bone was broken.

The internal examinations of the bodies of Mary and Eliza revealed *similar conditions*: the eyes were infused with blood; the tongues very much swollen, and dark red; the veins in the temporal regions, also the sinuses and vessels of the brain, were very much congested; the lungs were also congested; the right cavity of the heart was full of blood; the stomach, bowels, kidneys, bladders, ovaries, uterus were normal.

The external genitals were terribly lacerated, the vaginal canal opened to view. Posteriorly, there were extensive abrasions in sight, the mucous membrane being torn, the capillaries ruptured and blood deposited on the injured surface.

By digital examination of the vagina of Mary I found the canal elongated on the left side and two of the three coats ruptured, a pocket formed by violent pressure.

By a similar examination of the vagina of Eliza, I found similar abrasions in the canal, but discovered an opening about an inch in diameter through its walls into the abdominal cavity between the bladder and the rectum.

We carefully removed the external and internal genitals. I placed them in sealed jars, and upon reaching Ottawa, removed secretions from both vaginas, and made careful microscopic examinations for spermatozoa, and with two associate M.Ds, found them in Eliza, but did not find them in Mary. I saw them on two future occasions in company with other M.Ds., who recognized the spermatozoa at the same time as I did.

I infer Eliza was the first ravished, and male seed left within the vagina; any sur-

plussed upon the penis would, I conclude, be deposited upon the external genitals at the time of the violent entrance into Mary.

I am satisfied that one mind guided two hands, which grasped two throats, exactly in the same way, and guided one penis in entering two vaginas—in both cases entering somewhat to the right and passing over somewhat to the left of the neck of the uterus; in the one case making a severe rupture through the walls into the abdominal cavity, in the other case rupturing two of the three coats, and abnormally stretching the third, forming a pocket. I here presented the jar containing the genitals.

The hands of Eliza were severely wounded, the skin gouged out of the knuckle of the index finger of the right hand; there were slighter wounds on the same finger between the second and third joints; the left hand was more severely injured. The wounds could have been inflicted by strong nails on human fingers.

At the L'Original Assizes I said, when under oath at the inquest I was closely questioned as to the wounds on Eliza's hands and the nails on the fingers of the suspect Laroque, I was sure that similar enquiry would be made at the Assize trial here to-day, so I placed a tissue paper under the hands of Eliza, and made a careful tracing of both hands, then placed the transparency upon the hands, and with pencil tracing showed the form of the nails, and by pencil shadings showed the size and situation of the wounds.

But I was convinced that such a crude representation would not be acceptable to the learned counsel for the defence, so I conferred with the Crown Attorney, submitting to him my purpose to amputate the hands, take them to Ottawa, and obtain a life-size photograph of the same.

CARDS.—At this moment I presented a copy to the Judge, another to the jury, and the third to the counsel for the defence,

remarking at the time I obtained the photos, I apprehended the learned counsel for the defence would, upon their production here, ask me: "Do you swear that you were present when these photos were taken?" I could answer yes; but he would likely ask me: "Can you swear that you understand the art of photography?" I should have to answer, "No, not in all its details."

I apprehended I should be asked: "Can you swear that the artists did not, by malice, or mistake, make some of the shadings deeper than necessary, to present a true representation of the wounds?"

I knew I could not so swear, so I relinquished my intention of THEN burying the hands in the grave of the murdered girls, and resolved to preserve them in spirits until the close of this trial. I then handed the sealed jar containing the wounded hands to the clerk of the Court, who placed them in clear view of the judge, the jury, and the accused, and they remained there till the trial was ended and sentence pronounced.

I remarked further:—While under oath at the inquest I was asked to examine the finger-nails of the suspect Laroque, which I did, and declared under oath that, in my opinion, Eliza's hands could have been wounded as found by human nails such as were on the fingers of Laroque. I then foresaw that six months' rest from work and six months' trimming with a penknife, the suspect's nails would be very much more changed in form at this assize than at the time of the inquest; so I took casts or impressions of the finger-nails on both hands of the accused Laroque in soft putty, afterwards taking plaster of Paris impression of said finger-nails, which were concave in the putty and convex in the plaster. I placed both before the judge and jury, showing the chisel-like nails on the hands of Laroque at the time of the inquest, being six months before the assizes.

I questioned if on the hand of one man in a hundred thousand you could find such strong, sharp, chisel-like nails as on the accused Laroque.

I was asked, could not two men have seized the girls by the throat? I replied: "No; it would be impossible for two men to leave the marks I found upon their throats, unless one was left-handed."

The learned Counsel for the defence asked me, as I had found evidence of an emission of male seed in the vagina of Eliza, had there been a second emission, would not the seed have been weaker than the first? I answered: "No, no more than rifle ball No. 15 would be weaker than rifle ball No. 1 fired from a repeating rifle."

The learned Counsel for the defence asked me could one man hold the girls' throats, and also ravish the two girls. I said: "Yes; with such injuries to the hyoid bone and trachea, breathing would be suspended, a flash cross the eye, a rumbling sound in the ear, consciousness almost instantaneously lost, and the victims be as helpless as if chloroformed."

The learned Counsel for the defence asked me was it likely the accused would ravish the girls when so nearly dead; I said yes; remarking it is only this week we learned through the press that in a recent battle women were slain as well as men, and the victorious soldiers returned and ravished the bodies of the dead women, and I inferred that it was more probable that the prisoner would ravish the body of a female, nearly dead, than for a soldier to ravish the corpse of a woman.

The learned counsel asked me: "Do you swear these girls died from asphyxia?" I replied: "No, my learned friend. I presume you vie with me in an admiration of the work by Tidy on Medical Jurisprudence, in which he wisely and truly remarks:

"We begin to die at the head, or

"We begin to die at the heart, or

"We begin to die at the lungs."

"The McGonigle girls, from the injuries inflicted on their throats, began to die at the lungs, and in about twenty or thirty minutes died at the heart; the primary cause of their death was asphyxia, but mental and physical shock tended to produce death in the brain and heart."

I admit the removal of the parts of the bodies, the preservation of the same and their presentation at the assizes may be pronounced by some as a very unusual proceeding, if not an unheard-of act previously performed by a medical expert.

But in my defence I submit the words relating thereto which fell from the lips of the learned judge.

His Lordship Judge McMahon, in his address to the jury, said: "Photographs have been produced, and Dr. Mark, with that care which I am very glad to see was exercised in this case, took the precaution to amputate the hands of one of the girls so that the jury might see exactly the struggle she was making in order to prevent the accomplishment of the diabolical deed which was then being perpetrated."

By His Lordship's special request in these words: "Could you make it convenient to-day to bring the vessel containing the genitals, etc.," His Lordship remarking he desired to clearly understand the injuries in their minutest details, "so as to write up the case fully and clearly in his report," he kindly remarked after the trial he had seldom heard medical expert testimony given with such great care and with so much satisfaction as by Dr. Robert Mark at the Laroque trial.

SOME UNUSUAL SYMPTOMS IN SPINAL CARIES.

A Lecture delivered at The City Orthopædic Hospital, Hatton Garden, London, by NOBLE SMITH, F.R.C.S. Ed., Surgeon to the City Orthopædic Hospital, and Surgeon to the All Saints Children's Hospital, London.

In discussing this subject I have upon many occasions referred to the uncertainty

of the symptoms of this disease, and pointed out that there are a large number of instances in which typical symptoms of caries do not exist.

PAIN, for instance, is a very uncertain symptom. I need not refer to the peculiarities of pain in an ordinary case, as they will be well known to all surgeons having experience of this subject; but I would again call attention to cases in which pain is either very slight or entirely absent. I have known caries to progress to a very considerable amount of deformity, and even abscesses to form without any pain occurring.

I have recorded several such cases, and therefore I will not dwell longer upon this point.

HIGH TEMPERATURE is a very important symptom, and is of especial value in cases where the diagnosis is, as far as other signs are concerned, doubtful. In acute tubercular caries there is very often, but not always, a rise in temperature. The following case well illustrates this subject:

Miss E. H., a very delicate-looking girl aged 16, began to suffer severe pain in the lumbar region, in April, 1893, and had gradually got worse.

When I first saw her, August 9th, she had recently recovered from influenza, but the temperature had risen again to 102° in the morning and 103° in the evening. It had been so for the previous fourteen days.

There was at first a question as to some specific fever. I found projection of the twelfth dorsal and the first lumbar vertebræ, and great pain in that region and below it. The spine was very rigid.

The case was obviously one of caries, and I thought that the high temperature was the effect of tubercular disease. Dr. Seton, who had charge of the case, coincided with my opinion. I anticipated a lowering of the temperature as soon as the spine was thoroughly fixed. The chart of this case is very interesting. The day following the

application of the "adjustable metal splint," the appliance which you have seen used with such good effect at this Hospital, the temperature dropped from 102° and 103° , which it had been for eighteen days, to 2° lower in the morning, and to 1° lower in the evening, gradually decreasing during the succeeding days. After each fresh adjustment there was a small temporary improvement in the temperature, but after the drop of the first four days it remained practically the same for nearly six weeks, when a further improvement took place, after which the temperature remained very steady, a fraction above the normal, and a week later it became perfectly normal, and has remained so. At the date when this practically normal temperature was attained, I had just succeeded in so arranging the apparatus that it proved a perfect support in all postures of the body. The spine had been gradually subsiding to a position in which it now remained fixed; the patient had been also improving in every other way—in healthy appearance, in gradual lessening of pain, and having a better appetite. The patient's listlessness and disinclination to do anything for herself, and some other symptoms, had led the relations to consider that some at least of her symptoms were hysterical. This view I could not agree with, and the hysterical symptoms all disappeared with the disappearance of the high temperature and with the other improvements.

This seems a very characteristic case of active tuberculosis of the spine; but from treatment by local fixation, and with general medicinal and dietetic remedies the patient continues to improve, and there seems every probability of a cure being effected.

The temperature should be regularly taken in all cases of caries. I have found it a valuable diagnostic symptom; a slight rise perhaps of about one degree of temperature only often being present in caries

when the diagnosis has been otherwise doubtful. Certainly one meets with many cases of caries in which no rise of temperature can be detected, but upon more extended observation in this matter I have no doubt very valuable statistics may eventually be obtained.

Then, again, as regards RIGIDITY, there is usually more or less rigidity of the spine in the neighborhood of the disease, and this is an important symptom in the early stages of caries. It is the result chiefly of muscular spasm from reflex action, or voluntary muscular action to prevent pain, but may also occur from the exudation of the products of inflammation. Rigidity in caries of the spine is not, however, so clearly defined as it is in cases of inflammation of the more movable joints, as the hip and knee, and in many cases it cannot be very clearly detected. If the disease be situated in the lower dorsal or in the lumbar vertebræ, causing slight posterior projection in these regions, it may be a question whether the projection is the result of posterior curvature from weakness of the ligaments of the spine or from caries. Under such circumstances the presence or absence of rigidity should be determined. The patient should be placed in the prone position, when, if the case is one of weakness only, the projection disappears, whereas, if inflammation exists, the projection remains more or less.

Careful elevation of the legs, while the patient lies in the prone position, will intensify this result. Movements in other directions will also generally be found limited as a consequence of the rigidity when caries is present.

In cervical disease the rigidity shows itself in stiffness of the neck muscles, and this often affects the head, laterally producing wry-neck. There is usually a great difference between wry-neck from caries and that from permanent muscular contraction. In the latter it will probably

have existed for a long time, and there will be little or no pain, or at least of a less distressing nature; there will be firm and unalterable contraction of the sterno-mastoid alone, and the face may be atrophied on the depressed side and the features distorted. In caries, other muscles as well as the sterno-mastoid will probably be affected, and the head will be held in a manner more expressive of pain, and support of the head will relieve the contraction and the pain to some extent.

In simple torticollis the movements of the head are only restricted in one direction; in caries the head is kept in one position, but not commonly restricted in any if carefully handled, because, in torticollis from caries, movements in any direction are painful, whereas in true torticollis, pain, if any, only occurs from movement in one direction. Rest in bed for a few days will often relieve the torticollis of caries.

In the latter affection there may be a condition of spasm in the contracted muscles, and in adults it may be difficult to distinguish between this disease and "spasmodic torticollis." I have known torticollis having all the characteristics of the simple affection to exist in a child for many months before it was recognized as a symptom of disease of the bones. Inflammation of lymphatic glands of the neck alone may produce torticollis, and this may be very difficult to distinguish in its early stages. In caries of the cervical vertebræ there may, however, be very free movement.

In caries occurring in the dorsal or lumbar regions, rigidity may be observed in the psoas muscles (or in one psoas only), being perhaps associated with psoas abscess, and this may produce lordosis instead of posterior projection. Such cases must be distinguished from simple local inflammation of psoas muscles, which is not always very easy; however, the latter condition is rare.

These cases also may be mistaken for hip disease.

In both instances other characteristic symptoms of the individual affection must be depended upon. In hip disease it may be remarked that the stiffness of the joint exists in every direction, as well as in extension; yet in some cases of lumbar disease the hip is found very stiff, and the diagnosis may be extremely difficult.

Then, again, the lumbar region may be very stiff in hip disease.

There may be a certain amount of rigidity in lateral curvature, especially in rachitic cases. In rachitic kyphosis, rigidity may be very considerable, and quite like that in caries.

NERVE SYMPTOMS, the difficulties in walking occurring at a comparatively early stage of this disease, the subsequent loss of power over the muscles, the pain and some other symptoms, denote lesions more or less severe of the nerves; the motor nerves are chiefly affected, commencing with weakness in the legs and increasing until complete paralysis of motor power takes place.

The range of these nerve symptoms depends upon the position of the disease, almost always being limited to the nerves proceeding from the diseased bones and below that position.

In paralysis from cervical disease the arms may be affected, and all power of motion below may be lost. Herpes-zoster may occur.

Spasmodic movements of the limbs may become a troublesome symptom, the legs jerking suddenly without giving the patient any warning. The thighs may be jerked into a severely flexed position, or spastic paralysis may take place. Exaggeration of the reflexes is an early symptom of the commencing paraplegia, the knee jerk being especially increased, and ankle clonus may be found to exist.

Although both legs are usually attacked simultaneously, one leg may be affected before the other, or in a greater degree, or even one leg alone may suffer. Paralysis of the diaphragm may occur. When pain in the course of the nerves precedes paralysis, this shows that irritation of the nerve roots occurred prior to complication of the cord, and precludes any supposed disease originating in the cord itself. (Gowers)

ABSCESS—There is a great deal to be said about the peculiarities of abscess, and in considering this subject it is as well to remember that in any case a piece of bone detached from the diseased vertebræ may cause special symptoms, and give rise to considerable pain and irritation.

There is hardly any direction in which an abscess may not extend, simulating a great variety of other disorders, and especially should its similarity to hip disease be remembered.

Moreover, the abscess may even penetrate to the hip joint itself, ulcerating through the capsule, and may thus set up disease in that joint.

Then, again, abscess in hip disease may simulate that of caries. We may have psoas abscess from disease of the kidney, and a lumbar abscess has been produced by a foreign body which has been swallowed, as recorded by Mr. Nicholls, Brighton and Sussex Medico-Chirurgical Society, February 3rd, 1887. In pointing out these few instances of a variation from the typical symptoms of spinal caries, it is impossible in a short paper to do justice to the subject, but I trust I have written sufficient to call attention to the matter, and to show that great caution should be exercised by the surgeon before forming a definite opinion as to the nature of any particular case of spinal disorder.

Society Proceedings.

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY

Stated Meeting, January 26th, 1894.

DR. JAMES BELL, PRESIDENT, IN THE CHAIR.

No doubt the benefit derived from simple incision, without any other procedure, is due in many cases to the moral effect of the operation itself, or expectation, as in metallic therapy, and this accounts for the marvellous cures reported as following the application of the new and extraordinary methods of treatment, such as faith cure, visits to shrines, laying on of hands, etc. Many of the diseases thus healed being those of the imagination are cured by imagination. Again, certain operations on the eye have relieved nervous symptoms, and trephining the skull without further procedure has temporarily cured epilepsy. This would explain the disappearance of pain and tenderness after exploratory incision, but not the disappearance of tumors or alterations in temperature, so other causes must be looked for, such as those suggested by Dr. White, viz., relief of tension, reflex action, etc., or perhaps some causes working in ways mysterious, and of which we know nothing, but to which we give such names as *altered nutrition, trophic disturbance, nervous influence*, etc., etc. No doubt these cases in time receive suitable explanation, but at present we are in the dark as regards them. In many cases such symptoms as pain and tenderness with general discomfort may be due to adhesions which at the time of the operation are released; for instance, in the case I reported above, the omentum was adherent to the liver, and its release may have banished the pain and tenderness. In many cases of nephralgia, exploratory incision has caused relief. I myself have had several such cases, but in every case the kidney was more than usually movable, and now I think the explanation is generally accepted, that in cases of nephralgia, where no calculus is found, the cause of the pain is due to twisting of the ureter of a more than usually movable kidney, and that operation tends to fix the kidney in place.

No doubt many of you here will be able to add to the cases I have narrated, and perhaps some of you may be able to explain them more satisfactorily than the reader of the paper.

Discussion.—Dr. SMITH thought the curative effects were due to the improved nutrition resulting from stimulation of the peritoneum at the time of the operation.

Dr. WM. GARDNER had seen excellent results follow exploratory laparotomy in two cases of tuberculous peritonitis. These were already reported to the Society. In a case of grape tuberculosis of the peritoneum, he recently

reported, the patient was in no wise benefited, but this case had advanced pulmonary tuberculosis as well, which would alter the prognosis. He doubted whether malignant disease of the abdomen was benefited by this operation, and had never himself seen any improvement in such cases.

Dr. JOHNSTON asked if the patient had been informed of the negative result of the operation.

Dr. SPRINGLE suggested that the improvement in Dr. Shepherd's case might be due to the application of the cautery to the liver. He wished to know what time had elapsed in Dr. Shepherd's cases as in a recent case of reported cure of malignant disease by laparotomy there was a subsequent relapse.

Dr. WESLEY MILLS said that he had a theory explaining the beneficial results in these cases which he hoped to bring before the notice of the Society at some future time.

Dr. JAS. BELL stated that he was sceptical with regard to the curative effects of laparotomy. In cases reported as having got well, the diagnosis was usually obscure, and this was true of Dr. Shepherd's case. He wished to ask Dr. Shepherd if he had ever known of a case, in his own experience or that of others, where a tumor of undoubted malignancy had disappeared as a result of exploratory laparotomy. In malignant disease the symptoms were sometimes temporarily arrested after a laparotomy. Tuberculous peritonitis was a self-limiting disease.

Dr. SHEPHERD, in reply, said that the patient was informed of the fact that nothing radical had been done at the operation. The cauterization had been so slight that it was impossible to believe it had any influence at all. He had not intended, in his paper, to introduce the question of the curative effects of laparotomy in tuberculosis. He had seen cases which improved after laparotomy, but thought they would have got well in any case. The operations had been done because the disease was believed to be something else. He thought Dr. Bell had misunderstood his statement as to the relation between exploratory incisions and malignant disease of the peritoneum. He did not assert at all that malignant disease had been cured in this way. On the contrary, he had said that Mr. Tait's case would be much stronger if a microscopic examination had been made. Still, those deficiencies in the evidence do not explain away the fact that something does take place. Tumors have disappeared—not malignant ones, perhaps,—and processes which had previously invalidated a patient have been arrested. In his own case a piece of the tumor was not taken for examination simply because its great vascularity rendered severe bleeding likely. Of the other cases referred to, in a good many the improvement had persisted for several years; in others a few months only had now elapsed. It was hard to say if the arrest

of malignant disease after operation was due to the operation. He would like to hear the new theory which Dr. Mills had referred to, even if only a partial statement could be given.

Dr. WESLEY MILLS considered it unsatisfactory to bring forward new views without having at hand sufficient evidence to support them. He might say, however, that he would explain the matter by *reflex*. He thought we explained too little, rather than too much, by this agency. For his part, he believed life itself to be a reflex phenomenon. In the question under discussion the reflex acted on the blood vessels, the cells, and in fact on the whole metabolism. He disagreed with the agnostic standpoint taken by Dr. Bell.

Hæmorrhagic Typhoid.—Dr. Adami brought forward the results of an autopsy, presenting a peculiarly rare condition, performed upon a patient æt. 19, who had been admitted to the General Hospital in November with empyema, under Dr. Molson, had been transferred to the surgical wards under Dr. Bell, and there had been operated upon, a silver drainage tube being inserted. The empyematous condition under daily drainage improved greatly, but the patient continued weak, with indications of pneumonic disturbance of the left lower lobe. A week before death symptoms of peritonitis supervened, with eventual diarrhœa, incontinence of fæces and great distension of abdomen. The patient died eight weeks after admission. The continued emaciation aroused suspicions of tuberculosis, while the septic nature of the temperature chart seemed to render it not impossible that the empyema of the lower half of the right pleural cavity had led to a sub-diaphragmatic abscess with subsequent extension and peritonitis.

At the autopsy, neither of these conditions was found present; the empyema had healed with firm fibrous adhesion of the lowest lobe to the chest wall. But there were typical evidences of typhoid. The last twelve inches of the ileum contained five ulcers, three of which had undergone perforation, although two of the three perforations were covered externally by thick, inflammatory lymph. The typhoid was complicated with hæmorrhages. Petechial and ecchymotic hæmorrhages were found most widely distributed:—Subcutaneous (mostly on chest, neck, and upper extremities); along the course of the alimentary canal; gums, tongue, tonsils; œsophagus, stomach, small intestines and large intestines, being particularly numerous in the jejunum and ileum; and these both submucous and subserous; in the heart (both subendocardial and subpericardial); in the substance and on the surface of the liver and kidneys; in the right suprarenal (sub-capsular); in the retro-peritoneal lymph glands; in the bladder (both submucous and subserous), and again in the consolidated lowest lobe of the

right lung. There had been a more profuse hæmorrhage into the pelvis of the right kidney. Cultures from the organs gave a preponderance of the coli bacillus.

Dr. BELL said that on Jan. 10th there was great pain and distension of the abdomen, followed by collapse and subnormal temperature. Perforative peritonitis was diagnosed, but it was thought to be possibly due to the burrowing of pus from the empyema into the abdomen.

Ruptured Tubal Pregnancy—Report on the ovum.—Dr. ADAMI reported the result of the examination of the specimen, 5.5 mm. long, attached to the wall of the ruptured Fallopian tube exhibited by Dr. Armstrong at the last meeting. It showed very great evidences of degeneration, and all that could be said was that it more closely resembled an embryonic structure than any other object. There were no signs of fœtal membranes surrounding it. Serial sections had been made, and showed that the object was bilaterally symmetrical and nourished by a vascular pedicle attached to the wall of the sac. There were no structures which could be distinctly recognized as fœtal organs, although the cell structure as a whole was of distinctly embryonic type. In a normal embryo of this size, numerous organs would be recognizable. It was possible that degenerative changes and invasion by leucocytes accounted for the discrepancy. The object was certainly not a tumor or parasite. The inner surface of the sac in the neighborhood showed papillæ, though no typical chorionic villi were met with.

Dr. MILLS referred to some experiments in artificially changing the environment of ova. These had led to astonishing anomalies in the ova. He thought the object in the present case to be an ovum.

Dr. SMITH considered that the specimen was an ovum.

Dr. ARMSTRONG remarked that the history of the case was that of a ruptured tubal pregnancy.

Leuchæmia.—Drs. FINLEY and ADAMI reported this case as follows:—

We venture to bring forward the present case, not because we feel absolutely convinced as to the correctness of the diagnosis (though at the same time it is difficult to see what other diagnosis satisfies all the details of the case), but because it seems to us that the uncommon clinical history and the appearances discovered at the autopsy are worthy of being placed upon record. For the very full report of the case we are indebted to Dr. Mackenzie, house physician of the Montreal General Hospital.

S. D., a deaf mute, but nevertheless a bright and intelligent-looking girl of eleven years of age, was born and lived till she was seven years old in California. The mother, who is a robust woman, has had four

children and no miscarriages, the father is alive and has some pulmonary affection.

The third day after birth a large swelling formed under the left ear and advanced forward to the cheek. This was poulticed, and discharged a large quantity of pus. She was a sickly infant, and suffered much from colic. At eleven months old she had an attack of whooping cough; when she was two years of age it was noticed that she could not hear. At four she suffered from measles, and at the outset of this attack occurred the first hæmorrhage, three cupfuls of blood being vomited. Next morning there was a slighter hæmatemesis, and after this her condition was very weakly. When she was seven years old she vomited up a teacupful of blood without any premonitory symptoms, and without serious disturbance to her health. At eight she suffered a double rupture, for which she afterwards wore a truss. For the past five years her general health, if not robust, has been fair; she has been able to drive the cattle on the farm, has had a good appetite, and has not suffered either from diarrhoea or from hæmorrhoids.

Recently she was admitted to the Mackay Institute, and there learned to articulate a few words.

Upon December 30th last, she gave evidence of feeling unwell, and spat up some mucus stained with blood; later in the day, while in the housekeeper's arms, she brought up a large quantity of blood, estimated at about two quarts; she became very faint. Saline enemata were given with good effect, and she was confined to bed until January 1st, when she was admitted to the General Hospital under Dr. Finley.

Here her condition was found to be one of marked anæmia; the temperature was normal, the pulse 120, small and regular, the tongue large and fissured along the median line, with small fissures branching off.

Upon examination of the abdomen, some fullness was noticed in the left hypochondrium, and an oval tumor was made out, extending from the costal margin to just below and to the right of the umbilicus, while to the left it extended back to the line upwards from the middle of the crest of the ilium. It could be palpated bi-manually and was movable. The dullness extended upwards, merging apparently into an area of thoracic dullness, whose upper margin was 2 inches above the nipple.

The liver dullness was diminished, being $3\frac{1}{2}$ inches across in the right mammary line.

The heart lay in normal position; both apex and pulmonary systolic murmurs were present, soft in character.

The blood was pale and scanty, the amount of hæmoglobin was reduced to 38 per cent., the red corpuscles reduced to 2,240,000, the white increased to 1,200, and in some specimens of blood examined by Dr. Finley, the proportion of white to red had risen to 1 to 80. No change in the character of the corpuscles was noticed.

The urine was normal, though small in quantity (16 ozs. in 24 hours). The stools were normal, one mass was of dark, blood-stained color, and with it came a little blood-stained fluid. The larynx was normal, the drum of the left ear concave.

The patient's condition improved in hospital; upon the 5th she was bright and cheerful, and seemed to have gained in strength. At half past five she had her supper of bread and milk. This seemed to bring on nausea, and after a few minutes she vomited with scarcely an effort 20 ozs. of bright blood, which rapidly clotted. She was immediately given ice to suck, an ice-bag was placed upon the epigastrium, and ergotin was injected subcutaneously. Ten minutes later a smaller quantity of blood was vomited. A stool passed at the time of the first hæmorrhage was normal and bloodless. Saline enemata were now given. At 6.20 a third hæmorrhage occurred, followed by three more; altogether, 48 ozs. of

blood was brought up from the stomach. The patient suffered from great epigastric pain, and gradually sank, dying at 1.35 a.m. on the 6th.

We have entered into all these details in order to throw as much light as possible upon the condition found at the autopsy. This was performed eleven hours after death.

Autopsy.—The body was found fairly well developed and of large proportions for the age of the girl (eleven years). There was no excessive fat: the abdomen was sunken. The organs in the thoracic cavity were very pale, there was a little clear fluid in both peritoneal and pleural cavities. The blood present in all the cavities was fluid, and presented a peculiarly pale, diluted appearance. The heart was normal, the lungs rather sodden and cedematous.

Upon opening the abdominal cavity, the small intestines and other organs showed extreme pallor. The large intestines were distended and filled with almost clear fluid (the result of saline enemata given shortly before death). The liver was wholly retracted behind the ribs, save that below the ensiform cartilage the left lobe showed for the extent of three-quarters of an inch. The spleen, which was of a dull pale bluish color with well rounded edges, extended forward and downward to within an inch of the umbilicus.

The result of the examination of the various organs was as follows:

The spleen measured $20 \times 8 \times 3.5$ cm. and weighed 410 grms. The surface showed a reticulated fibrous condition. The splenic vessels at the hilus were large, but not abnormally thick; there was no local evidence of interference with the circulation of the organs. Upon section the trabeculae were distinct and prominent; the pulp was relatively scanty and pale, while the Malpighian bodies were not prominent. The microscopic examination bore out these naked eye characters, the most noticeable feature being the general interstitial fibrosis more marked in some regions than in others, although everywhere the trabeculae were enlarged.

The liver was small, with sharp, irregular edges, and weighed only 610 grm.—one-half as much again as the enlarged spleen. The organ was very pale and had a distinctly cirrhotic appearance. On section, however, much of the fibroid change appeared to be superficial, and while the organ was firm and cut firmly, but few bands of fibrous tissue could be made out passing from the surface deep into the substance. Here and there were small, isolated fibroid patches in the liver tissue. The gall bladder was small and covered by an unusual layer of fat, more than 0.5 c.m. in thickness. The ducts were pervious. Microscopically the main characteristic of sections of the organ was its leucæmic appearance; the capillaries throughout were large and easily recognizable, though there was not the slightest indication of central atrophy of the cells, of nutmeg liver; contrariwise, it was difficult to recognize the individual lobules. The capillaries contained an undue number of leucocytes—in fact, certain of them were completely injected with these corpuscles. In addition, the organ was markedly cirrhotic, but the cirrhosis was not of the common type. There was not anything approaching to a framework of increased fibrous tissue, but here and there were isolated patches of fibrous overgrowth, many perilobular, while some were within the lobules. The growth was of various periods; some of the patches were of well formed fibrous tissue, but there were occasional areas of recent cirrhosis with small cell infiltration.

Certain capillaries in the heart muscle showed also this injection with leucocytes; otherwise the heart muscle was normal, save that it showed, where the fibres were cut transversely, peculiarly well marked vacuolation. This vacuolation is frequently to be no-

ticed in the cardiac muscle fibres of children, and it is questionable whether it should be regarded as a pathological condition.

Beyond their pallor, the kidneys, which weighed each 90 grms., presented nothing calling for remark, either macro- or microscopically, nor was there anything noticeable in the other abdominal and pelvic organs with the exception of the intestines.

The stomach contained 8 ozs. of clotted blood. There was no ulceration or evidence of localized or general inflammation. Careful examination, both by the naked eye and by the microscope, failed to reveal any ruptured vessel or cause for the hæmorrhage, which would seem, therefore, to have been of capillary origin.

The jejunum showed blood-stained hæmorrhagic patches in its mucous membrane, which varied in length from two feet to seven or eight inches, and were separated from one another by areas of apparently normal intestine. The ileum was similarly affected, but to a less degree. In neither could any special hæmorrhagic point or ruptured vessel be discovered. The cæcum was normal, the appendix thickened, its mucous membrane reddened and apparently inflamed; the follicles were slightly enlarged. The large intestine and rectum were normal.

There was no noticeable enlargement of the mesenteric or other lymph glands. The marrow of the sternum was red, but not increased in extent. It had not the dirty reddish grey color characteristic of leuchæmia. It may be added that the brain was not examined.

Two conditions might possibly explain the clinical and other conditions of this case: cirrhosis of the liver and leuchæmia. But there is much that can be brought against the former possibility. While enlargement of the spleen is frequently associated with cirrhosis, that enlargement is only moderate, and does not approach to the extent discovered in this case. Again, cirrhosis fits in ill with the history of hæmatemesis, manifesting itself at irregular intervals over a period of seven years; and while the liver was undoubtedly cirrhotic, the fibroid change was not of either the ordinary or congenital syphilitic type.

On the other hand, much may be said in favor of leuchæmia. The spleen was distinctly of the leuchæmic type: its large size and fibroid condition are both characteristic of splenic leuchæmia. The injection of the capillaries in liver and heart are in favor of this diagnosis; the hæmorrhages from the stomach and intestines also support it. The absence of any marked swelling of the lymphatic glands or of greyish red softening of the sternal marrow is not against it. Still, there are difficulties in connection with this view of the case. Leuchæmia in children generally runs a rapid course, and if this be a case of the disease, we are almost bound to assume that it has had a duration of four, if not of seven years, the first hæmorrhage, of a type similar to the last, having occurred when the child was four years old. Again, while the proportions of white to red corpuscles, as determined by Dr. Finley, had become increased from the normal of 1 in 300 to 1 in 80, it cannot be said that this is a very great increase, especially when the facts are taken into

account that correspondingly there was, through the antecedent great hæmorrhage, a diminution of the red corpuscles to less than half the normal number, and that one expects to find a post hæmorrhagic increase of the white corpuscles.

Nevertheless, in certain cases of leuchæmia, the number of leucocytes present in the blood is capable of great variation from time to time; and taking into account the very typical spleen and the condition of the liver, I am inclined to consider that this must be regarded as a case of chronic, or it may be termed intermittent, leuchæmia, in which it has happened that the observations upon the blood have been made at a time when there has been a relatively small increase in the number of white corpuscles. The state of the liver appears to me to sustain this view. Apart from the capillaries with their injection of leucocytes, the curious cirrhotic condition of this organ, with its isolated areas of fibroid change, some old and well developed, some comparatively recent, some external to the lobules, some within the lobules—all this is what might be expected to result from capillary emboli produced from time to time in the organ by masses of leucocytes.

Dr. LOCKHART had seen the case three days prior to admission; she was lying near a pool of blood which looked normal in appearance. Ice to the epigastrium and perfect quiet were ordered. Later on, repeated saline enemata were given with a wonderful improvement each time in the pulse, lasting for half to three-quarters of an hour. During the afternoon she had three more hæmorrhages aggregating nearly a quart.

Dr. LAFLEUR said the number of leucocytes varied greatly at different periods in the history of leuchæmic cases. He asked what were the conditions of the lymphatic glands throughout the body, and of the bone marrow.

Dr. ADAMI said that the spleen measured $20 \times 8 \times 3\frac{1}{2}$ cm. There was nothing noticeably wrong with the lymphatic glands. The bone marrow showed nothing abnormal. The difficulty in adopting the theory of leuchæmia was that she must in that case have had the disease since infancy.

Atresia of Vagina, Hematometra, Hysterectomy.—Dr. WM. GARDNER exhibited the specimen, taken from a girl of sixteen, with a history of violent pain and vomiting occurring periodically at intervals of about three weeks. A firm tumor could be felt in the hypogastrium. No vaginal canal was present, though the labia were normal. As no evidences of a vagina could be obtained by rectal examination, abdominal hysterectomy was done by the method of tying off the broad ligaments. The uterus was found to be greatly hypertrophied and was full of blood, the right tube was

normal, and the left distended with blood. The depth of the uterus was from 8 to 10 inches. The blood measured over $1\frac{1}{2}$ pints and had the ordinary characters of retained menstrual fluid. Such extreme conditions were, he believed, extremely rare. The operation was a success.

Aortic Aneurism.—Dr. E. P. WILLIAMS showed this specimen, which had been sent by Dr. H. P. Shaw, of Perth, Ont.

G. B., æt. 56, was for many years foreman on some dredging operations, and occasionally acted as diver. Previously, at the age of twenty-one, he had malarial fever, and at twenty-five an attack of acute rheumatism. Since then he has had several acute attacks and constant chronic rheumatism. He comes of a healthy, long-lived family, and has healthy children of his own.

During the summer of 1892 he suffered from anorexia and insomnia, and on the 1st of November he suddenly felt a sharp pain in the right mammary region, "like shoving in a red hot iron and drawing it out again."

The pain was paroxysmal and severe for five days, then the attacks occurred about every third or second day.

On Jan. 1, 1893, he noticed for the first time a small tumor in the right mammary region, which, from time to time, would swell up and "lift"; the skin over it would become red and tender, and then the paroxysms of pain began at the tumor, back, right shoulder and arm. After three or four hours the ribs seemed to "lift" and the pain would cease.

Upon examination at the Montreal General Hospital under Dr. Wilkins, a prominent pulsating tumor was found projecting forwards about 5 cm., and covered by reddened, cedematous skin. The most prominent part was firm, but the tumor was soft and compressible.

The ribs were not felt under the tumor. Dullness extended slightly beyond its outline.

Pulsation was synchronous with the heart beat, a sharp systolic rise followed by a quick fall; a slight systolic blow after the first sound was heard over the swelling, while the second sound is heard distinctly.

Tracheal tugging could be obtained.

The apex beat was at the fifth left interspace, and almost imperceptible. The sounds were normal, the aortic slightly accentuated. Pulse 72, of low tension; the radials were slightly thickened and pulsated equally. Respirations 20. Eyes normal.

After leaving the hospital the patient returned to his home. Dr. H. P. Shaw, who attended him, states that the pain became almost intolerable, only relieved by chloroform. Dyspnoea was severe and almost constant. The tumor was tense and heavy, requiring support by bandaging.

The temperature ranged from 101° to 104° .

On November 10, after several attacks of syncope, he became unconscious, and died comatose two days later.

At the autopsy, three hours after death, a firm clot was found in the aorta extending from the aortic ring as far as and into the great vessels of the neck, and projecting through the orifice of the aneurism. The sac was filled with soft clot. Both lungs were gangrenous.

The heart appears to be of average size with normal cavities and valves. The aorta is dilated, measuring at the ring 3 in. in circumference; one inch further, $6\frac{1}{2}$ in., and an inch beyond the left subclavian, $4\frac{1}{4}$ in. It is rough, and shows irregular nodules of atheroma, some breaking down, some undergoing calcification.

The great vessels of the neck are also atheromatous, measuring:—Innominate, 2 in.; L. carotid, $1\frac{1}{4}$ in.; L. subclavian, $1\frac{3}{4}$ in. in circumference.

Three inches from the aortic ring in the anterior wall of the aorta is a circular, thick-edged orifice, $4\frac{1}{2}$ in. in circumference, communicating with an aneurismal sac of large size.

In the course of its growth the sac probably became firmly attached to the wall of the thorax, and then gradually eroded through the ribs and intercostal structures to form a false aneurism covered by the skin.

The posterior wall consists of the remains of the dilated arterial coat, which is firmly united to the inner thoracic wall in a circular manner, the diameter being $5\frac{3}{4}$ in. from the midsternum to the right axilla, and from the second to the fifth ribs.

Outside the thorax, the dilatation extends further in all directions, being about $8\frac{1}{2}$ in. in diameter, as far to the left as the left costal cartilages, and from the upper border of the first rib to the lower border of the sixth.

The anterior wall is formed by the skin which is thin and vascular, especially over the central portion.

Into the sac project the rough ends of the eroded and broken 3rd, 4th and 5th ribs, and the edge of the sternum, which is rough and eroded between the 3rd and 4th costal cartilages. There are also bits of semi-detached bone and adherent portions of more or less organized clot.

Stated Meeting, February 9th, 1894.

JAMES BELL, M. D., PRESIDENT, IN THE CHAIR.

Dr. Robert Wilson was elected a member of the Society.

Purulent Pericarditis with Necrosis of the Sternum.—Dr. C. F. MARTIN showed the specimens obtained at an autopsy upon a male infant 17 days old who had died of purulent pericarditis. The labor was premature at 8 months, and the child sickly at birth. There was a sinus in the præcordial region, close to the sternum, leading directly to the pericardial sac, which contained some purulent fluid and flakes of lymph. There was necrosis of the

sternum, which appeared to be the origin of the trouble, as the process there appeared of earlier date than that in the pericardium. There was no evidence of syphilis or tubercle and no sign of infection through the umbilical cord. The external portion of the cord had not been detached, but was represented by a small shrivelled body 2.5 cm. long.

Dr. EVANS related the history of the case. The parents were both healthy and the labor had been easy. The child was small and sickly at birth, weighing only 3 lbs. 15 oz. On the 5th day it was noticed to be nursing badly; on the 8th a small pimple, from which pus could be squeezed, was noticed over the sternum. On the 13th day an abscess was opened in this region. Subsequently a probe passed into the deeper part of this abscess, entered a sinus leading into the pericardium, and the heart beats could be registered by the movements of the probe.

Dr. BELL asked if the incision made in opening the abscess had been continued down to the pericardium.

Dr. EVANS replied that such was not the case, the communication with the pericardium had been discovered a day or two later.

Epilepsy—Abscess and Cyst of Brain—Taphening and Exploratory Puncture.—Drs. BELL and ADAMI exhibited the specimens obtained at the autopsy in this case, and gave the clinical history.

Discussion.—Dr. JAS. STEWART had seen the case once in consultation. He thought the results of the post-mortem did not lessen the probability that the symptoms were due to irritation of the motor area, and thought that the cyst was the cause. After the operation he had thought the diagnosis was wrong, but the autopsy showed that it was right after all. It was not necessary for the lesion to be actually situated within the motor area in order to irritate it. He thought that there must still be some lesion not yet discovered (possibly of the internal capsule), as the cyst would not account for the paralysis. He thought the case could not be fully discussed at present, as the report was not complete. The electrical reactions were normal.

Dr. MILLS thought we were too rigid in our interpretation of what we mean by the motor area, and that it really is a sensori-motor area. The time has come to look for a wider definition which will include such anomalous cases as the present.

Dr. WILKINS said that the ganglion cells of the cord were probably involved, as shown by the wasting of the muscles.

Dr. ADAMI said that it had not been possible to examine the cord. The examination of the brain was not finished, as the specimen was not fully hardened.

(The discussion was postponed.)

Calcified Plates from the Pleura in Empyema.—Dr. ADAMI exhibited some calcareous plates removed from the pleura after resection of the 5th and 6th ribs. These looked like exfoliations of bone, but proved on examination to be merely deposits of calcareous salts in the thickened pleura following empyema.

Dr. BELL.—The patient was a man aged 48, who gave a history of a pimple having burst 8 months ago on the 5th intercostal space anteriorly. Since then pus had flowed from the wound. On resecting the ribs there was no appearance of exfoliation, but the empyemal sac, which had a capacity of about one pint, was lined with these bony-looking plates. Though the history only dated 8 months back it was possible that the disease had existed unperceived for some months or years. The patient was a tuberculous subject.

Cancer of the Body of the Uterus.—Dr. WM. GARDNER showed the specimen from an unmarried woman aged 55. There was a history of pain and bleeding coming on some time after the menopause, and which had lasted 6½ years. He had seen the patient 2½ years ago, and found the uterus enlarged. The cervix was normal. Upon curetting, some friable material was obtained, which proved to be cancer on microscopic examination. Operation was advised, but refused. The patient afterwards went to Europe and acted as courier to a party of tourists. Ten months ago she was examined, and some material, which was shown to be cancer microscopically, again removed from the uterus. Consent to operation was again refused, but, owing to the severity of the pain and hæmorrhage, was afterwards consented to. The operation was through the abdomen, as the vagina was narrow and atrophic. There were no adhesions. Near the fundus were two small pedunculated sub-mucous myomata, one of which was partly calcified. Recovery was uneventful.

Dr. SMITH thought that in any woman in whom uterine hæmorrhages recommenced a year or more after cessation of the menses, the case should be considered as cancer until the contrary was proved.

Albuminuria of Pregnancy.—Dr. SMITH showed some specimens of urine showing the rapid disappearance of a large amount of albumen in the urine after delivery. The patient had nearly lost her life a year ago from puerperal eclampsia. Subsequently, on becoming pregnant, her urine was examined weekly, and as it suddenly began to be highly albuminous in the fifth month, in consequence of a slight chill followed by convulsions, labor was at once induced, and the urine became nearly free from albumen in a few days. These cases should never be allowed to go on to full term.

Dr. SPIER read a paper upon scarlatina, based upon his observations of 100 cases of this disease as follows:

The first one hundred cases treated in the Montreal General Hospital during the present epidemic may be divided into the following classes:

(a) Of mild cases, showing all the symptoms of scarlet fever with a moderate fever and a little failure of the general health, there were forty.

(b) Of moderately severe cases, with a high temperature, a severe angina and intense rash, with considerable depression, there were twenty-nine.

(c) Of severe cases with a continued high temperature, ulceration and destruction of the tissues of the throat and involvement of the glands of the neck, there were thirty-one.

In over 50 per cent. of the mild and moderate cases, convalescence set in on the fourth or fifth day by crisis, the temperature falling in a few hours two or three degrees, then by lysis reaching normal by the end of a week or ten days. In a few cases the temperature fell to normal in twenty-four hours. The remainder of the cases reached the normal by a gradual lysis in from five to ten days.

The rash in many cases presented peculiar appearances. In many of the mild cases it was apparently absent or very transient, or appeared only in certain parts of the body, chiefly on the neck and chest, in the form of erythema. In three cases minute red spots without a general redness appeared.

In the moderately severe cases the rash as a rule presented the appearances generally described, but two or three presented a distinctly papular rash, these papules being specially distinct on the back of the hands and forearms.

Among the severe cases, anomalous rashes were common. One case presented a papular hæmorrhagic rash over the whole body without any distinct coloration of the skin between. Two or three cases had very numerous small vesicles over the whole body. The case of a young child presented the appearance of an acute exfoliative dermatitis.

The throat in mild cases showed as a rule redness and some slight swelling of the soft palate and tonsils. In the severe cases the whole palate, pharynx and tonsils were intensely red and covered with sticky mucus. In the most severe cases ulceration and destruction of the tissues occurred, accompanied by a foetid odor. In these cases also the glands of the neck became swollen and inflamed, frequently running on to suppuration. A general pyæmia has been frequently set up.

In one case sloughing of the tonsils and cellular tissues of the pharynx occurred, leaving the muscles of the pharynx clearly dissected out. In another case an abscess developed behind the soft palate, which was evacuated by an opening through it with immediate relief.

A large number of cases presented a diphtheritic appearance. This was most common among the moderately severe cases but was also common in the very severe cases. They were always accompanied by enlargement of the glands of the neck which very occasionally went on to suppuration. This diphtheritic condition occurred in 8 per cent. of the cases.

The digestive system was not, as a rule, much disturbed except the appetite was lost. Vomiting was persistent for four or five days in four cases. Diarrhoea was troublesome in three cases early in the disease. In fatal cases it frequently set in during the last three or four days.

The complications and sequælae have been numerous and varied.

The most frequent and most dangerous was inflammation of the glands of the neck. This occurred in 19 per cent. of the cases. The most dangerous was that form with an ulcerated condition of the throat. It generally ran on to suppuration, and was by far the most frequent cause of death, five deaths occurring from this cause, while only three recovered.

A less important form was that accompanying the pseudo-diphtheritic angina. This only went on to suppuration in one case, and caused no deaths. These two forms have occurred in the first two weeks of the disease. Three per cent. of the cases suddenly developed an acute inflammation of these glands during the third week of convalescence. It set in with chill and high fever, and a rapid enlargement of the glands took place. In two cases complete recovery took place by the third day, but one ran on to suppuration.

Acute nephritis occurred in 8 per cent. of the cases, coming on insidiously in the third or fourth week. Death occurred in two cases with complete suppression of urine and convulsions. In five cases apparent complete recovery took place after two or three weeks. One case, the only one in which dropsy was markedly present, became chronic.

Otitis media occurred in six per cent. of cases most frequently with the pseudo-diphtheritic angina, but occasionally with the mildest cases. It may occur at any time during the first four weeks of the disease.

True diphtheria has been present in four cases, but cases have been frequently coming into the hospital suffering from diphtheria, and evidently only shortly convalescent from scarlet fever.

Arthritis was common following this disease. A large number complained of slight pain in one or more joints. Three per cent. have suffered from severe attacks resembling acute rheumatism with fever and swelling of the joints. In one case, double hip joint disease rapidly developed with dislocation of the heads of both femurs upwards and backwards. There was no evident formation of pus.

In another case a so-called white swelling

became purulent; rapid and extensive destruction of the joint followed.

Mitral disease developed in two per cent. of the cases.

A purulent discharge from the vagina occurred in two young children during the fifth week, which disappeared in a few days.

A distinct relapse occurred in one case at the end of the first week of convalescence.

The whole course of the second attack was very severe, while the primary attack was very mild.

Ten per cent. of the cases treated died, the causes being as follows:

Nephritis, two deaths; ulcerated condition of the throat with involvement of the glands and pyæmia, five deaths; diphtheria, one death; pneumonia, one death; and one death due apparently to the intensity of the poison.

All but one death have occurred among young children, though fully 25 per cent. of the patients have been adults.

The adult who died was a chronic drunkard.

Tabulation of Cases.

Mild.....	40
Moderately severe.....	29
Severe.....	31
	100

Complications.

Well marked inflammatory enlargement of the glands of the neck.....	19
Acute nephritis.....	8
Otitis media.....	6
Diphtheria.....	4
Severe arthritis simulating acute rheumatism.....	3
Mitral disease.....	2
Pneumonia.....	1
Relapse.....	1

Deaths.

Malignant scarlatina ...	1
Acute nephritis.....	2
General pyæmia.....	5
Diphtheria.....	1
Pneumonia.....	1

10

Discussion.—Dr. E. P. LACHAPELLE referred to the severe epidemic of scarlatina now going on in Montreal since October last. The reported weekly mortality was at present 20 to 30, but the real mortality was much larger, as a large number of cases were improperly certified. An inspection made by the Provincial Board of Health showed that the medical profession was mainly responsible for this unfortunate state of affairs, as it was impossible for the health authorities to do anything unless they knew of the cases. In Montreal, two-thirds of the physicians never report cases of infectious disease at all. Whether this was because they do not think of it, or do not care, or object to do it, the result is very bad. No one has any doubt to-day as to the contagiousness of scarlatina or

the duty of medical men to report cases, if the heads of families, who are also responsible, neglect to do it. If only a few men report, they suffer in consequence. If the profession are lax in regard to one contagious disease, they will be so in regard to others. The public is at the mercy of the physician. He hoped the Society would pass resolutions insisting upon the necessity of all cases being reported.

Dr. LAFLEUR said that he always reported such cases as soon as a diagnosis was made, but that many days often elapsed before the house was placarded.

Dr. ALLEN mentioned a case where he had attended a patient in a boarding house. Upon the statement of a member of the household, the board of health disinfected the house and removed the placard, although the patient went on desquamating for two weeks subsequently.

Dr. JOHNSTON thought there were too few physicians in the staff of the City Health office. Most of the disinfection and visiting appeared to be left wholly to sanitary policemen without any supervision, hence mistakes were often made. Work of this kind should be carried out under medical direction.

Dr. KENNETH CAMERON stated that his experience in this epidemic had changed his previous opinion that scarlatina is a mild disease. His first case was one of the hæmorrhagic form, and was fatal in 6 hours. He thought the infection was largely spread by mild cases which were not diagnosed. He had seen several instances in school children in whom the occurrence of dropsy had first drawn attention to the real nature of the case.

Dr. BULGER estimated from the statement made by Dr. Lachapelle, that there must be 500 cases occurring weekly. This probably would give one or more cases in every street in the city. He would advocate stopping the whole public school system, and so calling public attention to the necessity of providing some proper means of quarantining cases. The supineness of the local health board could only be overcome by taking strong measures such as would arouse public indignation.

Dr. McCONNELL stated that the local health board was not blameless; as for scarlatina patients, there was no other provision for conveying them to hospital than the public cabs. Children were allowed to return to school within two or three weeks from the commencement of an attack. The health officer should see to it that such does not occur within at least six weeks. He had little faith in the utility of sulphur fumigation when clothing and bedding were not disinfected by heat. Much can be done to prevent the spread of the disease through a building by the floating particles of cuticle, if antiseptic ointments were used during the period of desquamation. Creolin, carbolic acid, salicylic acid and rosorcin may be used: the latter has

the additional action of promoting a more rapid peeling, so that this process may be completed one or two weeks earlier than the ordinary period.

Dr. SMITH agreed with Dr. McConnell's statements. He made a practice of using carbolized vaseline and giving a hot bath every 24 hours, and tried to promote sweating. He gave copious drinks of water to flush out the kidneys.

Dr. MILLS said that whatever were the shortcomings of the local health board, we should not take shelter behind them. There had been a serious delinquency on the part of the profession, and we might as well admit it. He would recommend that a deputation of the Society wait upon the City Council and urge the adoption of suitable measures for restraining the epidemic. Most of the cases in school children could be watched through the co-operation of the family physician. To close the schools would produce a panic condition prejudicial to the community.

Dr. ARMSTRONG.—The reason why cases are not reported is that two families out of three object to having it done, and point out that their neighbors' cases are not reported. Placarding is of no use, as intelligent people will warn others of the danger, and ignorant people will pay no heed to it. Nothing was accomplished by the antiquated methods of disinfection which constitute the only resource of the local health board; they make a little stink and do nothing more. Disinfecting was properly done only when the family physician went to the trouble, personally, of explaining how it should be carried out, and superintended it himself.

Dr. LACHAPELLE could not agree with Dr. Armstrong. Two wrongs do not make a right. Whatever might be the faults of the local board, the profession was much to blame. If we, as a profession, had done our duty, we would have more right to complain. He approved of placarding, as it was likely that servants would not do their duty in warning people, whereas a placard warned everyone of the danger. He did not think the situation was severe enough to warrant such a step as closing the schools, and the well children would run just as much risk at home. The Society might depend upon the Provincial Board of Health doing their duty, however unpleasant it might be.

Dr. GORDON CAMPBELL said that some weeks ago, in a house fumigated by the city health officials, the clothing had not even been stripped off the infected bed. Some weeks later another case developed in this house. In St. Cunegonde absolutely nothing was done when cases were reported.

Dr. BELL, in summing up the discussion, said that if we first took the mote from our own eye we would be better prepared to remove the beam from that of the local health board. While sympathizing with what Dr. Armstrong

had said, still even when put in a false position, the members of the profession should be guided by their strong sense of duty, and do all in their power to check the spread of the disease. The present was a good time for the Society to express itself strongly to the incoming municipal council. It was simply disgraceful that Montreal had no place for quarantining scarlet fever, and through the absence of such a place we were now losing 50 lives weekly, not to speak of those who were afflicted with life-long consequences in the shape of affections of the ears or kidneys. He would suggest that the matter be referred to the Council, with power to add to their number and instructions to act.

Upon motion of Dr. MILLS, it was unanimously resolved that the Council should associate themselves with Dr. Lachapelle, and should take whatever action appeared necessary.

Progress of Science.

LIGATION OF THE BASE OF THE BROAD LIGAMENTS PER VAGINAM, INCLUDING THE UTERINE ARTERIES FOR FIBROIDS OF THE UTERUS.

Dr. Augustin H. Goelet, of New York, in a contribution to the *American Medico Surgical Bulletin*, June 1st, reports favorably upon this operation in his hands for the control of uterine hæmorrhage and reduction of fibroid growths. He believes it should be done in lieu of hysterectomy when that operation would involve too great a risk, and as a preliminary step with a view of avoiding the necessity of the more hazardous operation. When extensive attachments have not been formed which afford additional nutrition, considerable reduction has resulted even in growths of large size. When the operation has been done for smaller growths the result has been more satisfactory. In some instances complete atrophy has been reported. This result, as well as arrest of the uterine hæmorrhage, is accounted for by the diminished nutrition furnished the uterus and these growths by interference with the blood supply and nerve supply which are included by ligation of the base of the broad ligaments. It is estimated that the uterine arteries furnish the uterus with two-thirds of its blood supply, and it is reasonable to expect that a profound effect will be produced upon that organ and growths arising from the walls if this is suddenly cut off.

The sole danger in the operation is the risk of including the ureters in the ligatures, as they pass down behind the uterine arteries only half an inch from the cervix, and are consequently in the field of operation. Dr. Goelet suggests,

as a preliminary step, to eliminate this risk, that bougies be passed into the ureters through the bladder. He admits, however, that a careful operator accustomed to working in this region may easily avoid the ureters.

The technique of the operation as described by Dr. Goelet shows an important departure from the usual method followed. Instead of ligating each artery in only one place on a level with the internal os, he applies a second and often a third ligature to the artery on each side as it ascends along the side of the uterus, the result of which is to cut off the compensating blood supply from ovarian artery to the lower part of the uterus.

Dr. Goelet gives all the credit of priority to Dr. Martin of Chicago, who has recently suggested and popularized the operation and perfected its technique, but states that he first ligated the uterine artery *per vaginam* on one side in January, 1889, in the case of a large fibroid the size of a seven months' pregnancy, with a view of diminishing the size of the growth by reducing the blood supply. The artery on the other side was not ligated because the position of the tumor made it inaccessible. Six months later the tumor was one-third smaller, and was giving no inconvenience.

He quoted his last case operated upon, to show how promptly uterine hæmorrhage may be controlled by this operation.

THE PARASITE OF CANCER.

On several occasions we have called attention to the investigations of Professor Adamkiewicz, of Vienna, since they promised to throw more light on the obscure etiology of carcinoma. In his latest article, which is published in the *Wiener Medizinische Presse*, the author formulates the results of these investigations as follows: "The true and characteristic element of cancer is a coccidium. From its originate spores (larvæ), which in turn develop into coccidia and amoebæ. Metastases are produced by migration of the larvæ, coccidia and amoebæ to different parts of the body. The development of larvæ takes place within the epithelial and endothelial cells of the diseased area. The parasite, when developed, lives outside the cell and forms an integral portion of the cancerous tumor. It destroys the epithelia, but never causes them to proliferate, and it seems probable, therefore, that what appear to be epithelial proliferations are frequently colonies of coccidia and amoebæ." Adamkiewicz calls this parasite the coccidium sarcolytus, and considers it identical with the epithelial cell of cancer. Korotneff, who has followed a similar line of investigation, reaches essentially the same results. He goes even further and gives a minute description of the cancer parasite and its mode of develop-

ment. Viewed with his eyes, this formidable animal when fully formed is a gregarine, having a bulbous anterior end and terminating posteriorly in a sort of tail. It is rarely, however, that the larvæ develop into gregarines; usually they grow into a coccidium or amoeba.

Whatever practical value be attached to these observations, they are, at any rate, strikingly original and deserving of careful consideration. Looked at from another point of view, they illustrate exceedingly well the contradictory character of the evidence afforded by microscopical research in some diseases. As seen by one observer, the tissues of a cancerous neoplasm consist of proliferating epithelial cells, while to another, equally careful, these same cells assume the appearances of a destructive parasite. The nuclei of the cell in the one case become the larvæ of the coccidium in the other. How can these differences be explained? There certainly seems an element of optical delusion involved in the question.

TRAUMATIC PERIOSTITIS.

By B. M. RICKETTS, M.D., Cincinnati, O.

Having had a number of such cases under my observation, two or three of which have gone from bad to worse, I am led, on this occasion, to speak of the good results following prompt surgical interference. That the periosteum may be diseased independently goes without saying. That it is susceptible to injuries of any kind there seems to be no doubt. That the serous effusion as the result of inflammatory changes becomes purulent under certain conditions has been well established, even where there is no apparent connection externally. There is no class of injuries that present so great a number of opportunities for the study of this disease as railway injuries. The prompt interference in cases where there is a serous effusion not only shortens the course of the disease, but greatly lessens the liability of the bony structures becoming involved.

This interference consists in making one or more incisions through the entire thickness of the periosteum, depending upon the amount of tissue involved. The evacuation of fluid of any character, under these circumstances, is always attended with most gratifying results, and I feel sure that the premises and investigations of Mr. Ollier have been the greatest means of arriving at these conclusions. While the periosteum in its normal condition is tough and inelastic, it is not so in as great a degree when thickened by inflammatory processes. The effects of inflammation upon this membrane is to cause it to become several times its normal thickness, the changes being the same

as in any inflammatory process. The pain is sometimes excruciating and persistent, and if the pressure upon the bone is not relieved soon after the effusion takes place, there is great danger of bony necrosis, which, when once established, may have no limit. Especially is this so about the epiphyses and the apophyseal lines. The further the injury is upon the epiphysis from the apophyseal line, the greater the danger to bony destruction; in other words, the softer the bony tissue involved, the less resistance it has to abnormal changes. Unfortunately, the softest bony tissue is found near the articular surfaces; hence the great danger to joints when these tissues are the least involved.

It has been customary to postpone surgical interference where the periosteum is involved near articular surfaces. I am thoroughly convinced that this procrastination has been the occasion of many joints being needlessly involved. The nearer the articular surfaces the more prompt the surgeon should be in removing fluid of any character, either supra or sub-periosteal. As stated before, the periosteum is tough and inelastic, and in nature's great effort to absorb any kind of fluid, especially about the epiphyses, there is great danger of their destruction. It is better, in these days of antiseptic surgery, to take our chances for a good result in the evacuation of these fluids under these circumstances, than to leave them in the hands of mother Nature. True, she does her work at times rather perfectly, but there are times when she must be assisted, and I look upon this condition as demanding prompt attention.

It has been my fortune to have several of these cases under observation, a few of which I have been enabled to treat from this standpoint, and I feel assured that the good result following in each of these cases has been due to the early evacuation of the effusions. Who would hesitate to freely incise a felon, which is nothing more or less than an acute periostitis due to trauma? If it is good in one, it must surely be good in the other. This rule holds good, not only in trauma, but in periostitis from any cause, unless it be syphilitic. There are certainly conditions of this form of periostitis in which much good would be obtained from free incisions, viz.: In cases of persistent pain which have defied the anti-syphilitic remedies. In this connection I will say that I am led to believe that tuberculosis is the cause of 80 per cent. of all the cases of periostitis.

Case 1. Female, aged 40, weighing about 240 pounds, fell in her yard, striking the inner and middle portion of the left lower leg on a box. She complained of acute pain in this locality for two days before I was consulted. There was considerable tenderness and swelling; temperature 99°. It was necessary to give her

morphia to relieve the pain; elevation and hot applications were of no benefit. This state of affairs continued for seven days, when I prevailed upon the patient to allow me to make a free incision. This would have been done on the fourth day had it not been for her husband's interference. Under the influence of chloroform I made an incision two inches in length directly down upon the tibia, not, however, until after I had explored with the needle showing that fluid was present. The moment the periosteum was incised, about two ounces of serous fluid escaped. I introduced my finger, and found that the bone was denuded for an area of about one inch. This was to me a most remarkable condition. The periosteum was very much thickened, and gave evidence of degeneration. I believe that had I delayed the operation for a week or so, there would have been suppuration resulting in the destruction of both the periosteum and bony structure. Her recovery was uninterrupted, and she was upon her feet with a cane at the end of the third week.

Case 2. A man, aged 44, weighing about 160 pounds, in stepping from a street car struck the shin bone upon the platform. He did not pay much attention to it for a few hours, but as the pain became gradually worse I was consulted for its relief. It was also necessary in this case to administer morphia to accomplish this purpose.

On the following day he found it necessary to take to his bed, where he remained for two days, at the end of which time he felt that necessity compelled him to proceed on his journey. The swelling and tenderness increased until the entire tibia seemed to be involved. He went from under my care, but consulted me one year after, when I found that the tibia was very much enlarged, that the entire leg had been gradually involved, that he had done no work whatever, and that the suffering at times had been very severe. I report this case as one where free incisions were not made, and to show the result of not making them. This bone will be 20 per cent. larger than its associate, and will always be more or less troublesome for years to come. Had the patient remained under my care, and submitted to the operation that I advised, I firmly believe that the present state of affairs would not exist.

Case 3. Male, aged 33, of rather good habits, occupation clerical, struck the right arm upon his desk, causing but little inconvenience until after the first twenty-four hours. The pain was rather severe and dull in its character. There was considerable tenderness and but little swelling, showing, to my mind, that the swelling was not in proportion to the amount of pain, indicating that the fluid was beneath the inelastic periosteum. It was necessary to put his arm in a sling, as he

would not consent to have an incision made down upon the bone. However, as the pain became more severe, he gladly consented on the fourth day to allow me this privilege.

Under the influence of chloroform I made an incision, about a quarter of an inch in length, down through the periosteum, which allowed about half an ounce of bloody serous fluid to escape. The acute pain did not again occur, although it was necessary to place the arm in plaster-of-Paris with an opening in it over the incision. A small probe was occasionally introduced through the incision down upon the bone, that the fluid might have easy exit. This was not done after the first forty-eight hours. The swelling of the arm, which had by this time somewhat increased, gradually diminished. I feel certain that had this incision not been made, the epiphysis of the ulna would have become involved, thus seriously affecting the elbow joint. The arm was kept in plaster for two weeks, when it was removed, and motion in the joint was found perfect.

Case 4. Young man, 22 years old, a brakeman, allowed his knee to be caught between bumpers. It is a question as to the amount of space between the bumpers. The draw-bar of the tender of a locomotive is always stronger than that of any other car, so that it does not have any spring, otherwise I believe the knee would have been crushed and amputation been necessary. However, the epiphyses of the tibia and femur being injured made it necessary to give the parts complete rest. Here is a case where the pressure was so uniform that there was no particular part of the periosteum or bone involved. The force was not sufficient to seriously affect either, so that at the end of three days he was able to get about on crutches, which were used for two or three weeks. The tenderness about the external condyle of the tibia and femur was rather acute, and there seemed to be some question as to the extent of involvement, that is, whether or not there was the presence of periosteal effusion. This, I am certain, did not exist sub-periosteal. The fact that the course was short and the pain slight led me to believe that the effusion was so limited that operative interference was not necessary. This is a case where it was not necessary to resort to any surgical interference other than complete rest and the constant application of heat. *The International Journal of Surgery.*

OPERATIVE TREATMENT FOR STONE IN THE BLADDER.

Briggs (*International Medical Magazine*, February, 1894) contributes a most interesting article on this subject, giving his personal experience with two hundred and eighty-four

cases of stone, and discussing the various methods of operation.

He performed lithotripsy on five patients, all of whom recovered, but were very impatient over the amount of time required for treatment. He then tried litholapaxy on ten adult cases; in two, death resulted from renal complications. He selects this method of operation under four conditions: 1. Adult patients; 2. Capacious and tolerant urethra; 3. Small or medium-sized stone, or, if large, of soft consistence; 4. Bladder capacious and free from severe and persistent inflammation.

He prefers lithotomy in children, and has performed the operation on seventy-six children under sixteen years of age, and all recovered but one.

The supra-pubic operation he performed on seven cases for the removal of very large, hard calculi; resulting in recovery in five.

Forty-four operations by the bilateral method resulted in ten deaths. He then chose a modification of the median operation suggested by Civiale in 1829, and called by him the medio-bilateral method. He has performed that operation one hundred and seventy-one times, with a result of one hundred and sixty-seven recoveries and four deaths, three of the number not being attributable to the operation.

The advantages of the operation given are briefly: 1. It opens up the shortest and most direct route to the bladder; 2. It divides parts of the least importance; 3. It is almost a bloodless operation; 4. It affords a sufficiently capacious passage for the removal of any calculus; 5. It reduces the death rate to the minimum.

In conclusion, Briggs makes the following statements: "1. No method of operation is adapted to all cases; 2. Thorough preparatory treatment is essential to success; 3. Litholapaxy is the operation when the patient is an adult with a capacious and tolerant urethra, with a bladder free from severe chronic cystitis, and with a small or medium-sized stone, or, if large, of soft consistence; 4. The supra-pubic is the best operation for large and hard calculi; 5. The medio-bilateral should be chosen in all other conditions, because it is the easiest, safest and best."

PERSONAL.

Dr. Emory Lanphear, for many years editor of *Kansas City Medical Index*, has resigned the chair of Operative Surgery and Clinical Surgery in the Kansas City Medical College, and has removed to St. Louis. He makes the change in order to become Professor of Surgery in the St. Louis College of Physicians and Surgeons, one of the oldest and strongest medical schools of the West.

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MONTREAL, JUNE, 1894.

ANTIPYRIN AND ANTIFEBRIN.

According to the report of the United States Consul, the above drug is manufactured exclusively under the Knorr patents by the color works at Hoecheb in Germany. It is estimated that seventy-five tons of this preparation are sold annually, representing, according to an authority, a value of \$1,452,000, the greater part of which is clear profit. Apart from the ready solubility of antipyrin, it does not appear to have any advantages over antifebrin or acetanilide, which latter drug, not being patented, is sold for almost one-sixteenth the price of the patented antipyrin. The price of antipyrin is of course kept up by the law of supply and demand, and if there was less demand for it, the price would soon come down. For those who attend the poor the price of antipyrin at \$16.00 a pound is almost prohibitive when compared with antifebrin at \$1.00. Many regard antifebrin as safer than antipyrin; at any rate, the addition of a small quantity of alcohol to each dose not only renders antifebrin soluble in hot water, but also counteracts its depressing action on the heart. It is perhaps the best analgesic in dysmenorrhœa due to spasm of the tubes or uterus, while for relieving the pangs of the first stage of labor we have found nothing to surpass it. In no case, however, is it safe to exceed three or four ten-grain powders a day. Its solubility and activity are greatly increased by its thorough trituration

with equal parts of sugar of milk; but its compression into tablets seems to diminish the rapidity of its action. When taken in a fine powder, dry or with cold water, the action of antifebrin varies with the condition of the stomach; we have found it to act most quickly when taken after a meal, or when the stomach contains a certain amount of acid.

THE STAMPING OUT OF CHOLERA.

It has been known for the last ten years at least that Mecca was the great manufacturing centre of cholera germs for the whole world, and yet so fanatical were the Mahomedans in their faith in the miraculous powers of the holy well at that place, that the Turkish government did not venture to enforce the most ordinary precautions suggested by sanitary science. The holy well was found to be nothing better than a cess-pool, and that to drink its polluted waters was almost certain death, and yet the thousands of pilgrims continued to drink it and die. The British government has been blamed in some quarters for not using her great influence in order to have the holy well closed up, but it must be remembered that her rule in the East has only been possible through her proverbial justice and toleration of the various religious beliefs of her subjects, and on this particular subject of the holy well there were millions of people who were fanatical believers. At last, however, the Turkish government has agreed to purify the holy well at Mecca, and the British government has adopted quarantine regulations on the Red Sea port, so that very soon we may expect to hear that cholera has disappeared from the face of the earth. Now that the fact is becoming more generally known that the only way to contract cholera is to drink it, more care will be taken to secure a pure water supply. It was a pitiful example of official ignorance a year or two ago to see half a dozen steamers in New York harbor, each with a thousand or more people on board, and compelled to remain there drinking the water which had been taken on board at Hamburg from a river which was known to be polluted with cholera. And yet the authorities wondered that new cases made their appearance on board. The simple emptying and disinfection of the tanks and the refilling of them with clear water would have saved

many lives and millions of dollars. If the axiom were burned into the brain of all sanitary officials, that "one cannot get cholera unless he drinks it," a pure water supply would be the quickest means of stamping out the disease.

THE CAUSE OF JAUNDICE.

In Quain's Dictionary of Medicine there is an article by Dr. Murchison on "Jaundice independent of Mechanical Obstruction of the Bile Ducts," which, according to the editor of the *American Association Journal* is already obsolete. Recent experiments have shown conclusively that apart from mechanical obstruction of the bile ducts, bile never appears in the blood; and that when the bile cannot flow through its normal channels into the intestine, it enters the lymphatics of the liver, and is conveyed by the lymph channels into the thoracic duct and thence into the blood. Experiments have been made, which show that when the bile ducts are ligatured, bile promptly appears in the urine; but when the bile-making liver is completely removed, no bile is made and none is to be found in the blood or excretions. The question is an important one because of the great advances which have been made in the surgery of the gall bladder and bile duct, and cases of jaundice, which would, not long ago have rapidly proved fatal, are being cured every day now by prompt resort to surgical measures for the removal of the obstruction.

SHALL THE CLERGY PAY?

This is a question which is being pretty generally discussed in the Medical journals, and has therefore excited a good deal of interest. At one time when clergymen took a vow of poverty, and charged nothing for their ministrations but gave their sacred message freely, without money and without price, it was becoming that in return they should have all their wants supplied in the same generous way. But now all this has changed; the minister of the gospel makes his business contract with a congregation for such remuneration as the law of supply and demand dictates; and the doctor who attends his church, or who is married by him, or is buried by him, or has his children christened by him, receives his bill for it, or if

he does not receive a bill is expected to send the money all the same. In fact, no one does anything for the doctor for nothing, and indeed he is generally charged the outside figure for every service rendered to him, and no one does anything for nothing for him except another doctor, and even then the quality of the service is not always first class. Many clergymen receive very large nett salaries, and are quite able, and it must be said quite willing, to pay for services rendered them and their family. The doctor has perhaps enough to tax his benevolence to the utmost in attending the widow and the orphan and the hundreds of others who have been left destitute, without attending for nothing those who are comparatively well off.

NOTES FROM OUR EXCHANGES.

We see by the *Medical Press and Circular*, 31st Jan., 1894, that a well-known general practitioner in Dublin is furnishing the financial backing to an establishment of lady barbers which has been recently opened in that city. At one time, of course, all physicians were barbers, and we suppose that this is a case of "reversion."

The family doctor sometimes feels it his duty to advise his patients to leave a house on account of its unsanitary condition. For doing this, an action for libel and damages was recently taken against a Dr. Feunlhet, of Herne Bay, England, by the owner of the house. A verdict was given with costs in the Doctor's favor.

OPHTHALMIA.

In a recent article on an epidemic of granular lids in some of the English schools, Mr. Jonathan Hutchison concludes by saying: "I do not wish to be considered as an alarmist, but as a cause of blindness on the continent the ophthalmia of granular lids stands second only to the ophthalmia of infants. Our duty is, first, to be well informed ourselves and then to inform the public. The profession generally, and not only ophthalmologists, must learn to appreciate the importance of the problem before us." We are happy to say, that owing to the greater purity of the air of our cities, and also to the better feeding and less crowding of our school children, this disease is almost unknown in Canada. Ophthalmia neonatorum is occasionally seen, but this will soon be stamped out when the custom of giving a bichloride vaginal douche before delivery, as practised at the Preston Retreat, shall have become more general.

It appears that physicians in England receive a fee from the Health Department for every notification they send of cases of contagious disease. If physicians here who are asked to perform this very disagreeable task without any remuneration were also paid, no doubt the number of cases reported would be very much greater. As long as there is no contagious diseases hospital to take the patients to, we do not think that notification is of much benefit to the community.

It is the fashion at present to abuse the Hospitals and Dispensaries for allowing themselves to be abused by those who are able to pay. At a recent discussion on this subject before the Practitioners Society of New York (*N. Y. Medical Record*, 3rd Feb., 1894), the general opinion was expressed that it was quite exceptional for these charities to be abused. The Medical schools required clinical material, and in return for being thus made use of, those who went to the clinic received advice and medicine. This was very little for either part to thank the other for. In our opinion, they generally have to put up with a great deal of discomfort and loss of time in order to obtain attendance which was not always of very much value. Then again it depends very much upon the fees asked by the young practitioner, whether people in very moderate circumstances were poor enough to have to go to the dispensaries or not. A great many could afford a half a dollar twice a week who certainly cannot afford two dollars a visit, and for two visits a day. Those who grumble most at the dispensaries are the young doctors, and yet they need have nothing to fear from the former, provided they would place their feet within the reach of the mass of the people.

We have more than once pointed out some of the advantages of the practitioner's returning to the good old custom of dispensing his own medicine, the principal ones being that by so doing he would see his patient at least every week, instead of never seeing him again; second, if he cured the patient, the latter would recommend his friends to consult the doctor instead of obtaining a counter-prescription from the druggist; third, he would avoid the danger of having his patient fall into the hands of the patent medicine man, whose wares fill up every available corner in the druggist's shop; and fourth, he would be much surer that his patient would get the medicine he wished him to have, instead of something else which the young drug clerk might consider equally as good or even better. But there appears from the reports of a recent trial in the courts to be still another reason why the doctor should beware of sending his patient to a druggist shop. A few months ago a

physician with a large practice in the west end of Montreal sent a man to a druggist for some medicine for his wife, whom the doctor was engaged to confine and whom he was then attending. The druggist, while filling the doctor's prescription, told the man that the doctor was not competent to confine his wife, as he had once tapped a lady who was pregnant, having mistaken pregnancy for dropsy. The husband went home and told this to his wife, and so alarmed her that she at once discharged the doctor and engaged another one. The husband was also a member of a large lodge of several hundred members, of which lodge the doctor was the medical adviser, and at the next meeting of the lodge communicated the story of the tapping to other members in open lodge, with the result that the doctor was dismissed from the lodge. The druggist also told another patient of the same doctor's that his prescription was no good and that the doctor was no better. The doctor then sued the druggist for five thousand dollars damages, with the unexpected result that he lost the suit, and had to pay the costs, although it was proved that the tapping story was a falsehood manufactured out of whole cloth. The moral of this episode is that it is a very dangerous thing to send patients who have perfect confidence in their doctor to a drug store, where their confidence may be shaken and where their patronage may be alienated away to another doctor in whom the druggist has an interest. It would have been better for the retail druggists in general if this particular one had confessed his fault and thrown himself on the clemency of the court and the physician whom he had wronged, rather than that they should glory, through their pursuit, in the victory of a great wrong which, it was not denied, there had been committed.

SUBCUTANEOUS LIGATURE FOR VARICOCELE.

Dr. E. F. TUCKER has employed the following with success: An ordinary stout needle, about two inches long, and the necessary ligatures are all the instruments required. The needle, threaded, is made to pierce the scrotum from before backward, between the vas deferens and the veins, one end of the ligature being drawn clear through. The eye-end of the needle, which is still on the thread, is re-introduced through the hole of exit, and carrying the thread with it is made to pass outside of the veins and under the dartos, and out again through the hole of entrance, this end of the ligature drawn through, the needle unthreaded, and the ligature tied. By thus using the blunt end of an ordinary needle to carry the ligature back about the veins, there is no danger of piercing a vein or of puckering the skin of the

scrotum included accidentally in the ligature. It does away with the necessity of Reverdin's needle or any of its modifications, thereby diminishing the chances of sepsis, which are necessarily attached to the use of any mechanical needle, and adding to the general simplicity of the operation. In all other particulars the operation should be performed as described by Dr. Keyes.—*Med. Record.*

INGROWING TOE-NAIL.

Dr. M. A. VEEDER has made use of a method for the past ten years which answers well in the ordinary run of cases and also in certain cases of onychia:

It consists simply in cutting a piece of ordinary felt plaster, sold for use in cases of corns or bunions, so as to be the exact size and shape of the nail about which the ulceration is located. The bit of plaster thus shaped and fitted to the nail is to be firmly attached thereto, so as to press aside the overlapping granulations from off the nail. By holding it in this position a minute or two, until it dries and adheres firmly to the nail, it becomes strongly fastened and will stand considerable rough usage, but as an additional security, a strip of isinglass plaster is wrapped three or four times around the toe, including the felt. If properly applied, the relief is immediate, and the cure is complete as soon as the thinned and jagged edge of the nail underlying the granulation has grown out to its normal size.—*Med. News*, Jan. 27, 1894.

BOOK NOTICES.

THE YEAR-BOOK OF TREATMENT FOR 1894. A Comprehensive and Critical Review for Practitioners of Medicine and Surgery. In a series of twenty-four chapters, by eminent specialists. In one 12mo. volume of 497 pages. Cloth, \$1.50. Philadelphia: LEA BROTHERS & Co., 1894.

In the ten years of its publication, The Year-Book of Treatment has firmly established itself as an invaluable aid for all those who desire to keep posted on the current additions to the world's knowledge of the management of disease. The word "treatment" is construed in its broadest sense, including medicine, surgery, gynaecology, obstetrics, paediatrics, and all the specialties, in a series of twenty-four chapters, each contributed by a gentleman eminent in his assigned subject. Bacteriology and hygiene are compendiously dealt with, and the Summary of Therapeutics for the year presents this most important subject in the most available form for use. The various articles are sufficiently detailed for all practical purposes, but references to original papers are

given for the convenience of those desiring to make extended research.

The volume contains a "Selected List of New Books, New Editions and Translations," which will give the reader a knowledge of the latest and best literature under each head. The Index of Authors Quoted and Index of Subjects complete and close a volume which is authoritative, well arranged, serviceable for every medical man and universally available owing to its very moderate price.

The address of Dr. S. Weir Mitchell, to the American Medico-Psychological Association, with appended letters from prominent neurologists, will appear in the July issue of the *Journal of Mental and Nervous Diseases*, which should be read by all Physicians.

NEW AID SERIES OF MANUALS FOR STUDENTS AND PRACTITIONERS.

As publisher of the "*Standard Series of Question Compendis*," together with an intimate relation with leading members of the medical profession, Mr. Saunders has been enabled to study, progressively, the essential *desideratum* in practical "self-helps" for students and physicians.

This study has manifested that, while the published "Question Compendis" earn the highest appreciation of students, whom they serve in reviewing their studies preparatory to examination, there is special need of thoroughly reliable hand-books on the leading branches of Medicine and Surgery, each subject being compactly and authoritatively written, and exhaustive in detail, without the introduction of cases and foreign subject-matter which so largely expand ordinary text books.

The *Saunders Aid Series* will not merely be condensations from present literature, but will be ably written by well-known authors and practitioners, most of them being teachers in representative American colleges. This *new Series*, therefore, will form an admirable collection of advanced lectures, which will be invaluable aids to students in reading and in comprehending the contents of "recommended" works.

Each Manual, comprising about 250 pages (5 1-2 x 8 inches), will further be distinguished by the beauty of the *new* type; by the quality of the paper and printing; by the copious use of illustrations; by the attractive binding in cloth and by the extremely low price, which will uniformly be \$1.25 per volume.

PAMPHLETS RECEIVED.

LE GROS MAL DU MOYEN-AGE ET LA SYPHILIS ACTUELLE, PAR DR. F. BURET. Avec une préface du Dr. Lancereaux, Médecin de l'Hô-

tel-Dieu, Membre de l'Académie de Médecine, Professeur agrégé à la Faculté, Chevalier de la Légion d'Honneur. La syphilis à Ninive et à Babylone. Manuscrits relatifs à la pathologie sexuelle du Moyen-Age, ce qu'il fallait entendre alors par le mot lèpre. Recrudescence de la débauche dans toutes les classes de la société ; anecdotes curieuses et poésies relatives au culte de Vénus et à ses conséquences. Le "quatre-vingt-treize de la Vérole" ou épidémie de Naples (1493-96). La médication actuelle comparée aux formules empiriques de l'époque féodale. Discussion scientifique de tous les procédés mis en usage depuis 400 ans. Le traitement le plus nouveau. Moyen préservatif. Paris : SOCIÉTÉ D'ÉDITIONS SCIENTIFIQUES, 4 rue Antoine-Dubois, 1894. Tous droits réservés.

For those of our readers interested in syphilis and who are familiar with the French language, this small work will prove a treat.

OPIUM AND CATHARSIS AFTER ABDOMINAL SECTION. By Eugene Boise, M.D., Grand Rapids, Mich. Reprint from the New York Journal of Gynecology and Obstetrics.

A SERIES OF WOOLS FOR THE READY DETECTION OF "COLOR BLINDNESS." By Charles A. Oliver, M.D., Philadelphia, Pa. Reprinted from American Ophthalmological Society Transactions, 1893.

OPINIONS OF THE PRESS ON A BILL to establish a Bureau of Public Health within the Department of the Interior of the United States. Prepared by the National Quarantine Committee of the New York Academy of Medicine. John J. O'Brien & Son, Steam Book and Job Printing Establishment, 397 Fourth Avenue, New York. 1894.

HYSTERECTOMY BY MORCELLEMENT AND THE VAGINAL ROUTE IN PELVIC OPERATIONS, IN PLACE OF LAPAROTOMY OR THE ABDOMINAL METHOD. By Geo. J. Engelmann, M.D., St. Louis, Professor of Diseases of Women, Missouri Medical College and Post-Graduate School of Medicine ; Fellow American Gynecological Society, Southern Surgical & Gynecological Association, British Gynecological Society, etc. Reprinted from Transactions. 1893.

THE INTERRUPTED HIGH-VOLTAGE PRIMARY, OR MIXED CURRENT. By George J. Engelmann, M.D., of St. Louis. From the Medical News, February 3, 1894.

RETINITIS ALBUMINURIA. By L. Webster Fox, M.D., Professor of Diseases of the Eye in the Medico-Chirurgical College, Philadelphia. Reprinted from *The Times and Register*.

THE RELATION OF THE PATELLAR TENDON REFLEX TO SOME OF THE OCULAR REFLEXES FOUND IN GENERAL PARALYSIS OF THE INSANE. By Charles A. Oliver, M.D., Philadelphia, Pa. Reprinted from American Ophthalmological Society Transactions, 1893.

CLINICAL HISTORY OF A CASE OF SPINDLE-CELLED SARCOMA OF THE CHOROID, WITH A STUDY OF THE MICROSCOPIC CONDITION OF THE GROWTH. By Charles A. Oliver, M.D., of Philadelphia, Pa. Reprinted from Proceedings American Ophthalmological Society, 1893.

THE ALIENIST AND NEUROLOGIST for April contains : "Insanity in Relation to Law," by C. H. Hughes, M.D., St. Louis; On the Means of Preventing and Evading Insanity," by William W. Ireland, M.D., Edinburgh ; "Neurasthenia and Neurasthenia," by C. H. Hughes, M.D., St. Louis ; "Bilateral Paralysis of the Facial Nerve," by Dr. Monjoushko, Russia ; "The Criterion of Responsibility in Insanity," by H. C. Brainerd, Los Angeles, Cal. ; "The Education of the Feeble-Minded," by H. M. Greene, Lawrence, Kansas ; "Curability of Inebriety," by John G. Reed, M.D., Cincinnati, Ohio ; Editorials, Selections, Hospital Notes, Reviews, etc. C. H. Hughes, M.D., editor, rooms 421-2-3 Commercial Building, St. Louis. Subscription : \$5.00 per annum ; single copies, \$1.50.

That an unwarranted substitution of one remedy for another is occasionally practised by some druggists, there seems to be no question. That this is morally wrong, is equally true ; but that it is frequently a crime in the eyes of the law, and as such is punishable, seems to have been lost sight of by some of those who may practise it.

But the fact that such have enjoyed immunity from prosecution is no guarantee that they can continue their speculation, even on a small scale, without detection and its consequences.

Frank A. Ruf, of the Antikamnia Chemical Company, has recently been in New York and Chicago, and states that he has made arrangements for a thorough system of investigation throughout the country, and that counsel has been employed to prosecute, both civilly and criminally, all who persist in furnishing a substitute as and for antikamnia.

The Antikamnia Company proposes doing this without vindictiveness, and, indeed, with none but the most friendly feeling to the druggist. Even where a druggist has allowed himself to be persuaded into the practice, their first step will be to confer with him in the interest of mutual protection. Following that, they propose, if necessary, notifying every physician in the city of the name and address of the offender, with the recommendation to avoid him if honest goods are desired. The substitute obtained by the investigators, together with the name of the dispenser, will be shown to the physician, thus protecting the honest druggist. The more flagrant cases will be given to their attorney for proceedings in law.

Mr. Ruf said in regard to the matter : "We are simply determined that the honest druggist shall be protected ; that the physician and patient shall be protected ; and lastly, that our own interests shall not be trampled upon."—*Druggists' Circular*.

The Canada Medical Record.

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Original Communications.

DEMONSTRATION OF INTESTINAL ANASTOMOSIS WITH THE MURPHY BUTTON.

BY A. LAPHORX SMITH, M.R.C.S. ENG.,
Surgeon to the Women's Hospital, Gynecologist to the Montreal Dispensary.

While attending the Pan-American Congress at Washington a few months ago, I had the pleasure of making the acquaintance of one of the brightest men in the medical profession to-day. This gentleman's paper was near the end of the list, and he was just barely able to secure a hearing for it; but he had not read very far when the audience was completely taken by storm, each one inquiring of his neighbor who the reader was. The answer I received to my enquiry was that he was Murphy's button. As I had never at that time heard of Murphy's button, I was not much the wiser. While returning on the train I made his acquaintance, and had this ingenious invention thoroughly explained to me. For the sake of those among us who are frequently called upon to remove portions of gangrenous intestine

during operations for strangulated hernia, and to obtain anastomosis between gall bladder and intestine in case of obstruction of the common bile duct, or between stomach and intestine in case of stricture of the pylorus—for the sake of these gentlemen as well as their patients I deem it my humble duty to bring this device to their intimate notice. The buttons are made in three sizes. A button consists of two small circular bowls; size No. 2 measures as follows:—diameter 25 m.m., depth 8 m.m. There is sweated into a circular opening 12 m.m. in diameter, at the bottom of the bowl, a cylinder 15 m.m. in length with female thread on its entire inner surface. The cylinder extends perpendicularly from bottom of bowl. There is an opening in the male bowl, in which is sweated a similar and smaller cylinder of a size to easily slip into female cylinder. There are two brass springs soldered on either side of the inner surface of the lower end of the male cylinder, which extend almost to the top, where small points of them protrude through openings in the cylinder; these points are destined to catch the screw thread when the male cylinder is pressed into the female cylinder, and thus hold the bowls together

at any point desired. To separate them again they are simply unscrewed. A small brass ring, with a thin though not a cutting edge, to which is attached a wire spring, is placed in the male bowl and retained in position, projecting 7 m.m. above the edge of the bowl. This is held up by the wire spring, and is there for the purpose of keeping up continuous pressure until the entire tissue between the edge of the bowl is cut off. There are four openings, 5 m.m. in diameter, in the side of each bowl for drainage. We then have two hemispherical bodies held together by imagining cylinders. These hemispheres of the button are inserted in slits or ends of the viscera to be operated on. A running thread is placed around the slit in the viscus, so that when it is tied it will draw the cut edges within the clasp of the bowl. A similar running thread is applied to the slit in the viscus into which the other half of the button is inserted, and the bowls are then pressed together. The pressure atrophy at the edge of the bowl is produced by the elastic pressure of the brass ring supported by the wire spring. The opening left after the button has liberated itself is the size of the button. As I think you will readily admit, this method of anastomosis has several advantages over bone plates, catgut rings, rubber rings, sutures, etc. Among them: 1st, it retains its position automatically; 2nd, it is entirely independent of sutures; 3rd, it produces a pressure atrophy and adhesion of surfaces at the line of atrophy; 4th, it insures a perfect apposition of surfaces without the danger of displacement; 5th, it is applicable to the lateral as well as to the end to end approximation; 6th, it produces a linear cicatrix, and thus insures a minimum of contraction; and 7th, in the extreme simplicity of its technique, which makes it a specially safe instrument in the hands of the everyday practitioner as well as the more dexterous specialist.

Society Proceedings.

AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

The fourth annual meeting of the American Electro-Therapeutic Association will be held in New York, September 25th, 26th and 27th, at the New York Academy of Medicine.

Members of the Medical Profession are cordially invited to attend.

WILLIAM J. HERDMAN, M.D.,
President.

MARGARET A. CLEAVES, M.D.,
Secretary.

AMERICAN PUBLIC HEALTH ASSOCIATION.

SECRETARY'S OFFICE,
CONCORD, N.H., June 30, 1894.

(Preliminary Circular.)

The twenty-second annual meeting of the American Public Health Association will be held at Montreal, Canada, September, 25-28, 1894.

The regular sessions will be in Association Hall, Y. M. C. A. Building, Dominion square, opposite the Windsor Hotel. The following topics have been selected for consideration at this meeting:

- I. The Pollution of Water-Supplies.
- II. The Disposal of Garbage and Refuse.
- III. Animal Diseases and Animal Food.
- IV. The Nomenclature of Diseases and Forms of Statistics.
- V. Protective Inoculations in Infectious Diseases.
- VI. National Health Legislation.
- VII. The Cause and Prevention of Diphtheria.
- VIII. Causes and Prevention of Infant Mortality.
- IX. The Restriction and Prevention of Tuberculosis.
- X. Car Sanitation.
- XI. The Prevention of the Spread of Yellow Fever.

Upon all of the above subjects special committees have been appointed; therefore all papers upon these topics should be presented to the appropriate committee in season, to be incorporated as a part of the report of the committee, if deemed advisable.

The Executive Committee announces the following additional subjects, upon which papers are invited:

- XII. On the Education of the Young in the Principles of Hygiene.

XIII. Private Destruction of Household Garbage and Refuse.

XIV. Disinfection of Dwellings after Infectious Diseases.

XV. Inspection of School Children with reference to the Eyesight.

Papers will be received on miscellaneous sanitary and hygienic subjects, but preference will be given to the topics announced above.

All persons who purpose to present papers at the next meeting of the Association will be governed by the following By-Laws of the Executive Committee:

"4. All papers presented to the Association must be either printed, typewritten, or in plain handwriting, and be in the hands of the Secretary at least twenty days prior to the annual meeting, to insure their critical examination as to their fulfilling the requirements of the Association.

"5. If any paper is too late for critical examination, said paper may be so far passed upon by the Executive Committee as to allow its reading; but such paper shall be subject to publication or non-publication, as the Executive Committee deem expedient.

"6. All papers accepted by the Association, whether read in full, by abstract, by title, or filed, shall be delivered to the Secretary as soon as thus disposed of, as the exclusive property of the Association. Any paper presented to this Association and accepted by it shall be refused publication in the transactions of the Association if it be published, in whole or in part, by permission or assent of its author in any manner, prior to the publication of the volume of transactions, unless written consent is obtained from the Publication Committee.

"7. Day papers shall be limited to twenty minutes, and evening papers to thirty minutes, each."

Invitations extended to individuals to prepare papers for the Association do not imply their acceptance by the committee, merit alone determining that question.

The Local Committee of Arrangements has already commenced work to insure a large and profitable meeting. All communications relating to local matters should be addressed to Dr. Elzéar Pelletier, Secretary Local Committee of Arrangements, No. 76 St. Gabriel street, Montreal, Canada. Circulars will be issued in ample time, giving information relating to transportation and hotel rates, etc.

Blank applications for membership may be had by addressing

IRVING A. WATSON,
Secretary.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, 23rd Feb., 1894.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Cholesterin Cyst of the Testis.—Dr. ADAMI exhibited a cyst of the tunica vaginalis testis, removed post-mortem, which contained two ounces of a clear fluid, full of pure cholesterin crystals. The history of the case was that the patient, a man advanced in years, was brought into the hospital with paralysis of the left side, and with deviation of the eyes to the right. He rapidly lost consciousness, and after lingering a few days, died. At the autopsy a large hæmorrhage was found in the corpus striatum. There was a condition of general arterio-sclerosis, granular kidneys, emphysematous lungs and hypertrophied heart. On the right testicle there was a large cyst, apparently in front of the organ and full of fluid. The walls were thickened and atheromatous and contained calcareous plates.

The question as to the origin of the cholesterin was difficult to answer. Cholesterin in large quantities may be found in connection with dermoids and with atheromatous degeneration, but in both cases the crystals are almost always found associated with fatty debris. Old chronic hydroceles are recorded also as showing atheromatous conditions of their walls, and occasionally containing large quantities of cholesterin. Such is probably the nature of the cyst in question, but how and why the crystals are deposited in large quantities requires further explanation.

Dr. JOHNSTON had seen cysts in various parts of the body which were lined with squamous epithelium and contained cholesterin. He had seen one such cyst situated deep in the cervix uteri.

Dr. ADAMI said that atheromatous cysts are found in connection with the scalp, but in such cases fat and broken down tissue are among the contents, while in this case there was no fat or debris.

Dr. SHEPHERD exhibited the following specimens:—

(1) *Supernumerary Digits in the Pig's Manus.*—Two pig's fore-feet were shown, each with a supernumerary digit. In each case the digit was the lost pollex, and with it was reproduced, to its full size, the os trapezium, which, in the normal manus of the pig, is a small rudimentary ossicle. Dr. Shepherd remarked that the re-appearance of the lost digit in the pig's manus was not very uncommon, and said that the normal manus consisted of two hanging toes, the second and fifth, and the toes which reached the ground, the third and fourth, so that when a supernumerary digit

was seen it was always the lost pollex, and with it was reproduced the os trapezium of the carpus. A couple of years ago he presented to this Society a specimen of a pig's manus having a pollex and pre-pollex, six digits in all, a variation which was of greater rarity than the one above described.

(2) *Boat-Shaped Negro Skull*.—The skull was that of a full-blooded negro, and with a very small cranial capacity—in fact, microcephalic, and very prognathous. The skull was long and very narrow, and of the form usually described as scaphoid. This was due to the absence or early obliteration of the sagittal suture, hence the transverse growth being prevented, a great increase takes place in the vertical and longitudinal direction, thus giving the vault of the skull a boat-shaped shape. This was well shown in the specimen exhibited. At the site of the anterior fontanelle the bone was raised into a prominent boss, due no doubt to the later ossification at this point. This form of skull is said to be common amongst the Scotch, hence the term "long-headed Scotchmen."

(3) *Skeleton of Hawk with Multiple Fractures*.—This specimen exhibited healed fractures of the femur, breast bone and the radius and ulna of each wing. The fractures had been no doubt due to shot, as one pellet was found in the breast bone and another in the right bronchus. The amount of callus thrown out was enormous, being necessary to unite the fractured ends of the bones which were a considerable distance apart.

Necrosed Polypus of the Uterus.—Dr. LAPTHORN SMITH exhibited the specimen which he had removed from a woman fifty-five years of age, the menopause having occurred several years before. For two weeks the patient had suffered from a profuse foetid discharge. Her physician found a large mass in the vagina, which was easily broken and bled profusely, so he thought that the disease was cancer. Dr. Smith found that the mass was movable, and under an anaesthetic, when he had removed a large quantity of necrosed tissue, discovered a pedicle springing from the fundus, and which was easily removed. After thorough disinfection, the uterus was stuffed with iodoform gauze; the patient made a complete recovery. Dr. Smith pointed out that the foetid discharge, accompanied by hæmorrhage, rendered the suspicion of cancer very strong, especially in a woman so long past the menopause.

Cancer of the Body of the Uterus.—Dr. LAPTHORN SMITH exhibited a specimen of extensive cancer of uterus, in which the disease was confined to the body, the cervix showing no appearance of being affected. The patient had suffered from hæmorrhage, coming on several years after the menopause. Portions of tissue removed by the curette proved the disease to be cancer.

Osteo-Sarcoma of the Tibia and Fibula.—Dr. HINGSTON exhibited a tibia and fibula, in which large excavations were situated deep in the substance of the bones near their heads. The patient had come to him five months before, with a large, hard swelling at the back of the knee. Recognizing the malignant character of the growth, operation was advised, but the man would not submit until three days ago, when the leg was removed by the circular operation, a little above the condyles of the femur. There were large cavities on the posterior surface of the bones just below their articulating surfaces, where the tumor had been removed, and the periosteum was detached for some distance on both bones. The appearance of the bones would lead one to suspect strumous disease, had not the history of the case and the presence of the tumor pointed unmistakably to osteo-sarcoma.

Poisoning, possibly from Lead, after eating Canned Tomatoes.—Dr. JOHNSTON and Mr. WOLFF reported a case of a girl, aged seven, who was taken violently ill with vomiting and collapse within two hours after eating a large quantity of tomato soup. Of the other members of the family who had eaten the soup, the mother suffered from headache and nausea, while the rest were unaffected. The child died within sixteen hours. At the autopsy, no natural cause of death was found, but chemical analysis, made independently by Dr. Rutan and Mr. C. F. Wolff, showed the presence of a large quantity of lead within the liver. The case was of interest owing to the frequency of poisoning from canned goods, and the rarity with which any evidence pointing to the absorption of mineral substances had been established by analysis of the viscera.

Dr. T. D. REED considered the evidence of lead from the tomato can being the cause of death in this case quite inconclusive. Canned goods are used in enormous quantities, and death from the lead in them is unheard of. Fatal acute poisoning from any lead salt is extremely rare, several drachms per day of lead acetate are given therapeutically, and quantities of one ounce have failed to cause death. The entire amount of solder in a tin would only represent a very few grains of lead. The few cases of death from canned goods heretofore reported have been attributed to decomposition of the contents of the can, but in this case, as the material was boiled into soup, it is difficult to accept the eating of the tomatoes as the cause of death. Most persons carry about with them in their bodies a small quantity of lead.

Dr. JOHNSTON replied that the remaining contents of the can could not be obtained. He pointed out that though large quantities of the acetate may be taken with impunity, some other salts, notably the chromate, were highly

poisonous. Some such poisonous salt may have been present in this case.

Dr. HINGSTON remarked that the carbonate, which is a poisonous salt, may be formed from the decomposition of the acetate.

Dr. F. W. CAMPBELL suggested that the fatal result might have been due to decomposition of the tomatoes, and referred to two cases, that had recently come under his care, of severe poisoning from eating canned salmon. He pointed out that many years ago Dr. Joseph Workman recommended drachm doses of the acetate of lead for post partum hæmorrhage, and he recalled a case which appeared to be acute lead poisoning following this treatment.

Intestinal Anastomosis with the Murphy Button.—Dr. LAPHORN SMITH demonstrated the method of using this instrument for rapidly and effectually securing union between two portions of the intestinal canal, while leaving a lumen for the passage of the contents. The instrument consists of two metal discs, each having a central orifice about 1.50 c.m. in diameter. Each is attached to a portion of the bowel by having the free edges of the bowel drawn inward over it by a purse-string suture. The discs are then approximated and held in position by means of a spring which keeps up a continuous pressure upon the serous surfaces until union takes place, after which the compressed tissues slough away and the button is passed with the fæces. The advantages of this device are the rapidity and ease with which the operation is performed, the certainty of union, a large opening for the passage of the bowel contents while the union is taking place, and the little or no tendency to subsequent constriction.

Amœbic Abscess of the Liver.—Drs. FINLEY and ADAMI exhibited the specimens and gave the history of the case as follows:

The patient, a negro, æt. 37, was admitted to hospital upon January 31st, 1894, complaining of pain in the right side and weakness. The chief facts relating to his medical history were that he had lived for eleven years in Texas, and he had acted as cook on a vessel trading between Quebec and South America, and that he had also spent some time in Australia. He had never suffered from diarrhœa for more than a day or two at a time, and had never had dysentery. He had, however, two febrile illnesses, each lasting about three months, some years previously.

The present illness began a month previous to admission, with febrile symptoms and diarrhœa. Some pain in the right side and weakness, together with nausea and vomiting, were also present, but he had not taken to bed before his admission to hospital.

On examination the temperature was $101\frac{1}{3}^{\circ}$, the tongue was coated; there was no jaundice.

The intercostal spaces over the liver were full, and there was marked tenderness in the right epigastric region. Hepatic dullness began at the 5th rib, extending down for about 6 inches. Posteriorly there was dullness from the angle of the scapula downwards. Friction could be detected over the right infra-mammary region. The abdomen was otherwise normal. The urine was of a deep sherry color, 42 ozs. in 24 hours; it contained no bile, albumen or sugar.

During the ten days that the patient was under observation the temperature remained almost constantly at 102° , and there were no chills or sweats. The hepatic dullness during this period rose to the 3rd rib, and pus was withdrawn by the aspirator. Upon February 12th, Dr. Bell, after preliminary aspiration, opened the abscess posteriorly in the 9th space, and resected the rib, allowing about 50 oz. of pus to escape. The patient did fairly well for some days, but sank rather rapidly, and died upon February 18th, six days after the operation. Numerous actively moving amœbæ were found in the pus, together with much debris and a few leucocytes and red blood corpuscles.

The stools were examined for amœbæ during life, with a negative result.

It is unnecessary to give all the details of the autopsy, which was performed upon the day of death. Suffice to say that upon external examination there could be seen a wound in the ninth interspace and posterior axillary line in the right side; this led through the region of the resected ninth rib to the liver, and from it could be expressed whitish necrosed tissue together with some pus.

Upon opening the thorax, the right lung was found firmly adherent over all its surface, and greatly contracted and diminished in size. The adhesions were firm and close. It was found that the incision into the right lobe of the liver had passed through the diaphragm; but in consequence of the firm nature of the adhesions between diaphragm and costal wall, the pleural cavity presented no signs of acute recent disease, and had apparently been in no wise disturbed by the passage across of the contents of the hepatic abscess. The liver, which weighed 2650 grm., was greatly enlarged, both upwards and downwards. It extended three finger breadths below the costal margin, was of a fawn color, and presented here and there upon the upper surface of the lobes frequent small white patches—necroses or abscesses—averaging 2 mm. in diameter. The falciform ligament was well to the left of the ensiform cartilage, the right lobe being especially enlarged. In the substance of the right portion of the right lobe was a large abscess, with thick necrosed walls and irregular and shreddy internal surface. This extended from the

under surface of the organ to within 2 cm. of the upper and outer surface of the lobe; its breadth from side to side was 12 cm., and from above downwards it was 15 cm. (6 inches) across. Throughout the rest of the right lobe there were scattered a few other secondary abscesses; the largest of these was 15 mm. in diameter.

The intestines were markedly congested. In the jejunum were a few subcutaneous hæmorrhages. Upon examination of the large intestine no signs could be made out of any dysenteric lesions. Close to the ileo-cæcal valve was a small whitish patch, which gave rise to the suspicion that there was a cicatrix, but upon closer examination the most that could be discovered was that here the mucous membrane was softened and thin, with no ulcerous or old inflammatory conditions. Here, then, as not unfrequently occurs, the amœbic abscesses of the liver were present, without any indication of dysenteric intestinal lesions, either during life or at the autopsy. It is to be noted, however, that the hepatic flexure of the colon was in close contact with, and, in fact, adherent to, that portion of the under-surface of the right lobe of the liver, which was undergoing necrosis.

Beyond that the heart presented the condition of early pericarditis, and that the kidneys showed some acute parenchymatous nephritis, the condition of the other organs does not call for remark.

Stained sections of the liver and slough showed the presence of amœbæ; these were best shown by staining with methyl blue, and were faintly stained by hæmatoxylin. In the abscess cavity and its walls were numerous masses of streptococci. These were evidently of secondary growth, for the abscess contents were singularly free from pus cells, being mainly formed of broken down cheesy matter. Microscopic examination of the walls of the colon showed no evidence of necrosis.

In this case, therefore, the presence of fever, of hepatic enlargement, pain and tenderness, suggested the presence of purulent inflammation in the neighborhood of the liver. That this was so was confirmed by the result of aspiration. Whether the abscess was sub-diaphragmatic or in the liver substance was determined by the discovery of the amœbæ in the removed fluid. These indicated clearly that the origin of the disease was in the liver itself.

The failure to find amœbæ in fæces was explained at the autopsy by the absence of any dysenteric ulcers or necrosis in the colon.

This case gains an additional interest from the fact that, so far as we know, it is the first recorded in Canada in which the amœbæ coli have been demonstrated in an hepatic abscess, if not in the living body generally.

Dr. LAFLEUR stated that this was the first

case of the kind reported in Canada. The presence of abscess without dysentery is not at all unusual. He had seen three cases in Baltimore, which began as abscess of the liver, and in which it was only secondarily discovered that the patient suffered from dysentery, and, in fact, this was so slight that it did not form an important part of the disease, the lesions in the bowel being very secondary and unimportant compared with those in the liver. The anatomical picture in this case was exactly like that he had observed in a good many fatal cases of liver abscess, in which the amœbæ seemed to be the cause of the disease, and he had no doubt that the microscopical examination would be found to correspond. The pus of the abscess really consists of masses of softened necrosed material, and, as a rule, unless there has been a coincident infection by pyogenic organisms, the leucocytes are very few in number. He added that since he had written his share to the contribution on "Amœba in Dysentery," there have appeared in Germany and Austria a number of works upon the subject, which seem to favor the existence of a distinct form of dysentery caused by the amœba coli, and which confirm the work done in Baltimore.

Stated Meeting, March 9th, 1894.

A. D. BLACKADER, FIRST VICE-PRESIDENT, IN THE CHAIR.

Dr. O. F. Mercier was elected a member of this Society.

Xanthoma Tuberosum.—Dr. SHEPHERD showed a case and gave the history as follows:—The patient was a woman, aged fifty, who had suffered severely from jaundice, and was at present jaundiced. Three weeks before, she had noticed some yellowish-looking tubercles under the skin, which were of the size varying from that of millet seeds to that of peas. These grew larger, and others appeared in the normal lines and folds of hand, and often on the surfaces of phalangeal joints; here the tubercles were fused together into a raised yellowish band, which were subepithelial. These growths looked as if they contained fluid, but on pricking them it was seen that they were dense and fibroid in character. Latterly, tubercles of same character had appeared on the elbows and knees and also on the lips and side of nose. They were excessively painful when touched and pressed, and itched a great deal. The hands were continually perspiring. Dr. Shepherd said this was a somewhat rare disease, and was more common in women than men, being often but not constantly associated with jaundice. The tubercles are not connected with the sebaceous glands, as seen by

their appearing so abundantly in the palms of the hands. They are no doubt growths of connective tissue with fatty degeneration, this giving the yellow appearance. They sometimes occur in the throat and fauces, trachea, heart, etc. Treatment is of little avail. The patches often disappear spontaneously.

Dr. ADAMI had made only a cursory examination of portions of the growths that had been sent to him, but would give a full report to the Society at a later date.

Dr. BULLER had seen a great many cases of xanthelasma of the eyelids, and he thought that there must be some marked underlying difference between the pathological processes of this disease as found in the eyelids and in the other parts of the body. In these cases he had never found any tenderness of the diseased portion, nor could he ever elicit any history of sick headache or hepatic affection, though he always made careful enquiries.

Dr. FOLEY enquired whether the growth was strictly confined to the corium or whether it penetrated into the deeper structure; he also asked if cholesterin crystals were present.

Dr. ADAMI replied that as the corium and fibrous tissue below was very indefinite, Dr. Foley's question was difficult to answer; no cholesterin was found.

Arthrectomy.—Dr. ARMSTRONG brought before the Society a man in whom a particularly favorable result had been obtained of an arthrectomy of the knee-joint, a partial incision having been performed last September. As could be seen, the man walked well and had a considerable amount of motion in the joint; the patella was also quite movable. The operation was performed by the transpatellar incision, the sections being reflected up and down, the tubercular disease was shaved off the patella and condyles, the patella was then sutured and the wound closed without drainage. The portions removed were submitted to Dr. ADAMI, who reported them to be tubercular. They seemed to resemble the dry atrophic form of tuberculosis which sometimes occurs in arthritic joints, the *caries sicca* of Volkmann.

The history of the case, which presented many points of interest, was as follows:—The man came to the hospital early last spring, complaining of severe pain and practical immobility of the knee-joint. This pain was so severe that hypodermics of morphia were required to relieve him. There was very marked atrophy of the joint, which was then even more plainly seen than at present, the measurement being one to one and a half inches less than on the sound side. At the same time, when the knees were placed together one could hardly tell which was the diseased joint, the outlines of the affected one being perfectly normal,

there was no œdema, no puffiness, no redness to indicate disease.

In the absence of physical evidence, Dr. Armstrong hesitated to operate, and sent the man home after the pain had become somewhat relieved. He, however, shortly afterwards began again to annoy his family physician, who sent him back to the hospital with an urgent request that something should be done. The operation was then performed, with the result already mentioned.

The case is of interest as showing a relationship between joint disease and arthritic atrophy, the pain and atrophy being here more marked.

Dr. ARMSTRONG then cited the history of a case of hip-joint disease, presenting very similar features, which he had met during last summer. Here also pain and atrophy were the only symptoms. With Dr. Shepherd he had examined the patient under ether several times, without being able to decide on operation; but as the great pain was wearing the man down to a shadow, he at last opened the joint, and found distinct tubercular disease in the floor of the acetabulum, and the head of the femur was in a condition of caries.

The result had been very favorable, and Dr. Armstrong regretted that he could not find the man to bring him before the Society.

Dr. SHEPHERD had seen the case with Dr. Armstrong, and from the external appearances no one would have thought that there was a tubercular condition present in the joint. From the experience gained from this case he would be more ready to open such joints in future.

Dr. JAMES STEWART, on being asked to express his views on arthritic atrophy, thought that there was but little to be said on the subject; there are explanations for all forms of atrophy except this one. Some hold that its nature is that of a reflex process, but this is a convenient term to use when we know nothing about a subject, and such is probably the case here.

Frogs with the Cerebrum removed.—Dr. MILLS and Dr. MORROW exhibited two frogs deprived of the cerebrum, and demonstrated that they were capable of co-ordinated movements of the most complicated kind, including Goltz's "balancing experiment," i.e., the frogs would, when a surface on which they were resting was gradually tilted, move in order to maintain their position. They would also turn over when placed on their back. The frogs had been operated on about a month previously, and during all this time had never made one spontaneous (voluntary) movement; they had not, *e. g.*, attempted to leap out of the dish in which they had been sitting under a water tap. This showed that the removal of the cerebrum abolished voluntary movement, but that all the mechanism necessary for co-

ordinated movements remained. These frogs were shown especially, because it would appear that certain changes in the nutrition of the animals had taken place leading to necrosis of the skin, etc., and ulceration. On one occasion, when the surroundings had been changed, one of the frogs had shown tonic spasm of the limbs. This reminded Dr. Mills of what Prof. Goltz had told him, when a worker in his laboratory in 1884, that many of the dogs whose cerebrum had been operated on died in convulsions weeks or months afterwards. The frogs in question had been in only fairly favorable surroundings, and had been given a little food a few times, but food was of minor consequence to frogs in winter. A frog that had not been operated on, and kept under somewhat similar circumstances, was shown and seen to be in a very different state of health. Dr. Mills thought the operation had greatly lowered the vitality of the frogs, and this was one of the chief lessons conveyed.

Dr. WILKINS was of the opinion that a portion of the cerebrum remained intact in these frogs, as they had made an attempt to get away, which action involved a series of movements, implying volitional power, and volitional power cannot exist with no portion of the cerebrum intact. In a frog with the entire cerebrum removed, on stroking the flanks a single croak is elicited, but the debilitated condition of these frogs may explain the absence of the sound. Dr. Mills had expressed a doubt about frogs swallowing each other, but the speaker thought that he was mistaken. He had more than once, in his own laboratory, upon opening frogs found bones in their stomach, and on one occasion he had positive evidence that frogs do eat each other, for on hearing a splash and a croak he hurried to where the frogs were kept, and found one frog with the hind legs of another sticking out of his mouth, and which he immediately removed. He thanked Dr. Mills for his demonstration, and hoped that he would bring similar cases before the Society in future.

Dr. ADAMI, referring to the length of time that the frogs had lived, quoted a Russian observer who kept a pigeon alive a whole winter after the removal of the cerebrum. He further suggested that as an explanation of the double movements spoken of by Dr. Wilkins, the severity of the stimulus was sufficient to account for it.

Dr. MILLS, in reply, thought that Dr. Wilkins was confounding the actions of frogs with the cord only remaining with those, as in the present case, with cord and medulla. Whether it would turn out that these frogs had the whole cerebrum removed or not, he had certainly seen cases, in which the whole cerebrum had been removed, act in a manner similar to these.

Complete Double Ureter.—Dr. ADAMI read

the report of the case, and showed the specimen.

Although the condition of multiple ureter is one of comparatively frequent occurrence, it would seem that in nearly all the cases recorded of this abnormality, fusion of the ureters, forming a single canal, had taken place before perforation of the bladder wall. The entrance into the bladder of accessory ureters by separate openings is a condition which authorities on the subject are unanimous in regarding as extremely rare.¹ Gangolphe² states that in his search of medical literature, he was able to find only two examples. His search must have been incomplete, for we have met with about a dozen recorded cases in all—sufficiently few, however, to merit that the two cases in hand be described.

Of these, one was discovered in a recent autopsy at the Royal Victoria Hospital, on the body of a man aged 65. The right kidney in this case was normal; the left exhibited more than one abnormality. There were two renal arteries. The upper, of small size, was given off from the side of the aorta just above the level of the celiac axis. This passed into the substance of the cortex³ of the upper part of the kidney upon its anterior and upper surface, and half way along its course gave off the left supra-renal artery. The main renal artery left the aorta at its normal point of origin, and divided into three branches, of which the lowest passed in front of the renal vein, and sub-divided into three branches.

The kidney presented two pelves. The ureter of the upper one, which was the smaller, passed down behind the vessels, and crossed in front of the inferior ureter. Half an inch before reaching the bladder wall the ureters became fused externally, but at the same time the canals remained distinct. It was not possible to pass a pin probe from one to the other, nor could fluid injected into one ureter be found to pass into the other under any conditions. The ureter given off from the lower pelvis may be considered as the main duct, inasmuch as it was slightly larger, while its opening into the bladder was in the usual position, and corresponded to that of the single ureter of the right side. The superior and accessory ureter opened into the bladder by means of a small, but distinct, slit-like aperture, situated half an inch below, and to the inner side of the main orifice in the line between that and the urethral orifice.

The second case is a specimen obtained from a female body by Dr. Shepherd, of McGill University. This has, for many years, been in the Museum of the Medical college, and has never been recorded.

¹ Klebs *Path. Anat.* ii, page 678 (1876); Rokitsky *Path. Anat.* Syd. Soc. ii, p. 211; Foerster *Path. Anat.* p. 523 (1865).

² *Lyon Médicale*, No. 26, 1883.

³ An artery piercing the cortex is said to occur in 1 in 7 bodies examined.

With the exception that the kidney here presents a more clearly lobulated appearance, and that there is no arterial abnormality, the case is almost identical with the preceding. The reduplication occurs only on the left side, there are two pelves, the upper being the smaller, the superior ureter crosses in front of the inferior, and its separate orifice is also along the edge of the Trigone, in front, and to the inner side of the main orifice, between that and the urethra.

It is a curious fact that in nearly all the recorded cases of this peculiarity it has occurred in the *left* side. The two cases just mentioned are on the left side; Tangl's¹ celebrated case, and Gangolphe's² likewise occurred on this side. Baum³ has lately published a case in which it occurred on the right side. There may be no special significance to be attached to this *left*-sided tendency, but still it appears to obtain.

Dr. SHEPHERD had met with a great many cases of abnormal blood supply of the kidney, and partial double ureter, but the only other case that he had seen of complete reduplication was the one taken by Dr. Adami from the museum to compare with the case reported.

Mitral and Tricuspid Stenosis.—Dr. FINLEY exhibited a heart in which both mitral and tricuspid stenosis was well marked. The orifice of the mitral valve admitted the tip of the little finger, that of the tricuspid the first finger. The changes in the left ventricle were not marked; if anything, its cavity was somewhat smaller and its walls thin; the right ventricle, while its walls were slightly thickened and its cavity dilated, did not present that extreme degree of enlargement commonly found in mitral stenosis; the right auricle was the largest of all the cardiac cavities. The lungs presented numerous reddish patches, which on microscopical examination proved to be hæmorrhagic infarcts.

The following is the history of the case:—The patient, a female, æt. 33, was admitted to the Montreal General Hospital in November, 1893, for pain in the side and cough. She had suffered from repeated attacks of sore throat, sometimes going on to suppuration, but had never had rheumatism or chorea. Dyspnoea on exertion had been present for three months before her admission. She had never had hæmoptysis. The family history presented no feature of importance, and there were no rheumatic tendencies. The present illness began four days previous to admission, with a slight chill, cough and pain in the right side.

Physical Examination.—Moderate emaciation, slight cyanosis of lips and cheeks, with stellate venules on face. Temperature sub-

normal. Cardiac impulse forcible and somewhat heaving over lower sternal region. Apex in fifth space $\frac{1}{4}$ inch inside nipple. Marked presystolic thrill at the apex. Cardiac dullness normal. A harsh, rumbling presystolic murmur is heard, but to inner side of the apex, and localized over a space two inches in diameter. The first sound is abrupt, greatly accentuated and snapping in character. A soft systolic murmur is heard between the lower sternal area and the nipple. The pulmonary second sound is enormously accentuated and reduplicated. Below the angle of the scapula on the right side, dullness, feeble breathing, with diminished vocal resonance and fremitus. A small quantity of clear serum was drawn off a few days later with a hypodermic syringe. The first sound at the tricuspid area is feeble. The pulse 102, small, regular and of low tension. The other organs are normal, and the urine reddish yellow in color, s.g. 1025, no albumen or casts. Ordered digitalis m.x. ter in die.

Nov. 14.—Fluid in pleura reaches fourth rib in front. Temperature 99 to 100 in the morning and about 100 at night, became normal at this date. Digitalis dropped on account of vomiting.

Feb. 15.—The presystolic murmur and thrill disappeared, and ten days later pulse became extremely weak, paroxysmal attacks of intense dyspnoea and cyanosis came on, death resulting apparently from cardiac failure. The urine averaged 20 to 30 ozs. daily whilst under observation. There was at no time any oedema of the extremities or serous sacs.

The physical signs left no doubt that the mitral valve was narrowed, but there was, during life, no evidence made out indicating disease of the tricuspid. On looking back, however, on the case, he was inclined to think that the systolic murmur heard in the lower sternal area was possibly a tricuspid sound.

It was impossible to find the onset of the disease—there was no history of rheumatism; but judging from the condition of the cardiac orifices, it must have been of a good many years' standing, and the case furnishes another instance of the extreme degree to which cardiac disease may advance and yet compensation is maintained. A point of interest in connection with the first sound of the heart in mitral stenosis is the cause of its peculiar snapping character. It is, perhaps, difficult to give any satisfactory explanation. The point has been much debated, and many authors think that the thickened condition of the valve, in itself, would preclude the possibility of its emitting such a sound. Recently a paper has been published by Fenwick and Overend in *Am. Jour. Med. Sc.*, 1893, stating that the peculiarity of the first sound of the heart occurring in mitral stenosis is really $\frac{1}{2}$ due to the closure of

¹ Virchow's *Archiv.* 118 (1889) p. 414.

² Loc. cit.

³ *Archiv. of Gynecol.* 42, p. 339 (1892).

the tricuspid valve in the hypertrophoid right ventricle. The present case, however, certainly negatives such a view as the tricuspid valves are rigid, and yet the first sound was as sharp, snapping and loud as in cases of uncomplicated mitral stenosis.

Dr. MARTIN had examined the lungs, and found a rather curious condition resembling somewhat broncho-pneumonia, but sections proved the condition to be only hæmorrhagic infarction, with slight desquamation of the epithelium.

Dr. LAFLEUR remarked that the specimen was of interest, as all records show tricuspid stenosis to be a rare lesion. With reference to Dr. Finley's suggestion as to the possibility of there being regurgitation through the tricuspid valve—if such had been the case, there must have been pulsation of the veins; he asked if such a condition had been noticed. With regard to the situation of a systolic murmur as indicating tricuspid disease, it is not of diagnostic value.

Dr. FINLEY replied that there was very slight pulsation of the veins which seemed to come from below, but certainly was not a very marked condition—but as there are so many forms of pulsation of the vessels of neck, he did not lay much stress upon this condition.

Wound of the heart—Dr. SHEPHERD reported the case as follows:—In the summer of 1892 he was summoned to a case where it was said the patient, who had alcoholic mania, had pushed two needles into his heart. The patient when seen was lying on the floor, and seemed in great distress, but calmly told the doctor that he had tried to kill himself by pushing needles into his heart. On examining the region of the heart with every beat the skin over the apex seemed to be pushed up by something beneath; this felt like a needle. An inch out from this another needle could be felt deep down in the intercostal space. The patient said that he had pushed both needles out of sight beneath the skin with a sharp end of a file. Dr. Shepherd made an incision over the needle in the apex of heart, and by pressing in a needle holder caught the end of the needle and pulled it out. The second needle was extracted with greater difficulty on account of its depth, both layers of intercostal muscle having to be cut before the needle was reached.

The patient during the operation gave no evidence of pain. The needles were small darning needles, measuring a little over two inches in length. The patient never suffered any trouble from the injury, and was as well next day as ever. The wounds both healed by first intention.

Dr. MILLS spoke of the condition known as delirium cordis set up by wounding certain points in the heart, and referred to the suggestion made by a writer in the *Medical News*

some years ago, to make use of this procedure to restore the heart's action after chloroform syncope, but he thought that this step would be of doubtful value, as the heart may or may not recover from this condition of delirium.

Dr. LAFLEUR recalled the specimen of a bullock's heart, exhibited by him four years ago, in which a large wire had forced its way from the stomach into the heart, penetrating the ventricle and auricle. There was evidence that this process had existed for some time, as the wire had worn a regular groove for itself in the ventricular muscle. Septic infection has been set up from the communication with the stomach.

Dr. SHEPHERD referred to a paper read by Dr. Praeger, before the Canada Medical Association, in which he mentions a case of chloroform syncope which was restored by sticking a needle into the heart.

Congenital Defects of the Anterior Pillars of Fauces.—Dr. H. D. HAMILTON read the report as follows:—I have been furnished, through the courtesy of Dr. George W. Major, with this report of a somewhat rare malformation, which it is proposed should here be put on record. It is interesting as a curiosity and also because of the practical importance of diagnosing it from other affections.

J. C., member of the civic police, 25 years of age, a subject of laryngeal phthisis, was referred by Dr. Molson for local treatment on 8th Dec., 1890, to the Department for Diseases of Nose and Throat, Montreal General Hospital.

On examination, the anterior pillars of the fauces presented two longitudinal slits or fissures, the left being slightly the larger, and measuring half an inch in length by about 3·16 of an inch in width at the widest part. These openings were of a somewhat oval form extending down to the base of the tongue, and as the tonsils were deficient, the condition was very easy of observation. There was no evidence of cicatricial tissue anywhere, the edges of the opening being smooth, and presenting the natural appearance of the surrounding parts.

In the *Archives of Otolaryngology* for January, 1892, Max Tœplitz, of New York, reports a case, and states that the literature on the subject contains but six similar observations up to that date.

The cases so far recorded have been: (1) by Walters in 1859.

(2) J. Solis Cohen, in the *Medical Record* of 1878, and also in the 2nd edition of his work on Diseases of the Throat, where the condition is explained as a separate investment of the fibres of the palato-glossus muscle.

(3) Lefferts reports a case in the *Philadelphia Medical News* for 1882, besides communicating privately with Tœplitz regarding two unpublished cases in 1890.

(4) Chiari reports a case in August, 1884 (*Monatschrift für Ohrenheilkund*); (5) Schapring another in 1884; (6) Clarborne another in the *American Journal of Medical Sciences* of 1888, one-sided. One-sided defects have also been noted by Schapring and Töplitz.

Dr. BIRKETT had seen a case referred to him by Dr. Buller where the congenital defects existed on one side only. There are a number of such cases on record, but as yet no explanation as to how they occur has been satisfactory.

Progress of Science.

WELL SIZED UP.

Rev. J. B. Hawthorne, of this city, said in his sermon, February 18th: "*If all the thieves were put into the chain-gang to-morrow,.....it would shut the doors of real estate offices and thin the ranks of the legal and medical fraternities.*" In regard to the real estate business, Dr. Hawthorne probably speaks by the card, because he has been interested in some land schemes himself in a quiet way as a "side line" to the sacred ministry. He therefore knows the tricks of the trade. We do not know what motive or experience prompted the good doctor in his stricture upon the medical fraternity. The only relation that we know of which he has sustained toward the medical profession has been to receive free medical attention for himself and family whenever occasion required. Such insinuations, therefore, as the above come with very poor grace, and savor of the meanest ingratitude. And all of this, too, from a man, a minister, who owns or did own a large part of the stock in a patent medicine humbug, King's Royal Germetur, which consists only of the addition of one pint of hydrochloric acid, costing twenty cents, to a barrel of water, costing nothing, the mixture selling for one dollar a quart! The doctor ironically selected for his text that morning, "*He that is without sin among you, let him cast the first stone.*" We think that this great evangel of all that is good and honest, who poses as the public censor, might make a personal application of his text with considerable advantage.—*Atlanta Medical and Surgical Journal*.

FORMS OF PERITONITIS.

Dr. Roswell Park (*Med. Age*) concludes:

First. There is no such thing as an idiopathic peritonitis. Every so-called case has a

definite origin, which, however, it may not always be possible to easily determine.

Second. Many cases of non-traumatic peritonitis have their origin in the female pelvic organs, and usually belong to the staphylococcus and streptococcus forms; but some of them are really cases of colon infection.

Third. Those cases which depend upon perforation after ulceration, escape of gallstone into the peritoneal cavity, and lesions of this general nature, fall into the septic or putrid forms.

Fourth. Peritonitis due to internal obstruction or strangulated hernia is usually due to colon infection.

Fifth. Cases of peritonitis which do not originate in the manner already referred to almost invariably proceed from the appendix vermiformis, and of all these a larger proportion are cases of pure colon infection.

Sixth. The larger proportion of these are fatal unless surgical procedures be used.

Seventh. In every case of peritonitis for which obvious cause is lacking, the ilco-cæcal region should be carefully examined, if suspected should be explored, and this exploration may well be made under an anæsthetic with all conveniences at hand for the most formidable kind of operative procedure.

SURGICAL ITEMS.

In parasitic affections of the skin, chronic eczema and the like, Dr. W. D. Cutter recommends the following: Chloral, carbolic acid and tincture of iodine, equal parts. It should be used cautiously owing to the danger of producing severe inflammation.—*Canada Lancet*.

Applied on lint or absorbent cotton to a bleeding surface, chloroform promptly stays the flow, acts as a direct stimulant to the patient, and leaves no blood crust to fall off and reproduce hemorrhage.—*Medical Press and Circular*.

In inoperable cases of cancer of the uterus Depres (*Amer. Jour. Med. Sciences*) injects refined petroleum into the growth. These injections are painful, but cause speedy separation of sloughs, drying of ulcerated surfaces and cessation of odor. They are also of service in cases of abscess, and in acute vaginitis injections of three to five ounces produce a cure in six days.

"Many times," says Dr. F. Byron Robinson (*Med. Herald*), "I have watched Mr. Tait open an abdomen, explore and pronounce *malignant*, and then he would say to his nurse, 'Give me a needle and thread.' He would close the abdomen without attempting to remove a malignant growth, with a hopeless recovery. I

am more and more inclined to do as Mr. Tait does, and that is not to kill patients with surgery. Any patient that is almost sure to die had better die without surgery. It is a black eye to surgery to lose a patient at any time. In all forms of tumors, early surgery is the only kind that can be hopeful."

Surgeon's plaster, according to the *North-western Lancet*, is a simple and reliable remedy for chilblains. It is especially serviceable when the feet are attacked, and is easily applied to the big toe and heel. A salicylated plaster is of great value, as it helps any decorticated spots to heal. The plaster is applied, and allowed to remain on for three days, when the trouble will be found cured. After this it will possibly have to be renewed on account of soiling easily.

Dr. GOODELL (*Med. News*) pleads for greater conservatism in the treatment of diseases of the uterine adnexa, and advises that an effort be made to restore a woman's health by resorting to other than operative procedures. He states that the artificial menopause induced by operation is often attended with more serious complications than those that are not rarely observed in the natural change of life; and that in the majority of women that have been "castrated" the sexual impulse soon abates in intensity, much sooner than after the natural menopause, and that in many cases it wholly disappears.

Dr. HERMAN MYNTER calls attention to the fact that only sterilized water should be used on the brain, because it is extremely sensitive to antiseptics.

Finney sutured in place the ends of the ring and middle fingers seven hours after they had been cut off by a machine. Firm union took place within two weeks. When seen, at the end of three years, motion and sensation were complete. Antiseptics were avoided because they form a thin layer of coagulation-necrosis, which might interfere with union.—*Johns Hopkins Bulletin*.

Patients, the subject of pulmonary phthisis or other lesions of the air-passages, by which the sensibility of the passages is greatly increased, when having to undergo operations necessitating the use of an anæsthetic, stand chloroform much better than ether.—*American Fract. and News*.

Dr. MAURICE RICHARDSON (*Boston Med. and Surg. Jour.*, No. 7, 1894) says that the prognosis in uncomplicated cases of pyosalpinx, in which the tubes are not greatly enlarged and can be tied and removed without infecting the peritoneum, is very much like that after removing the appendix in the interval between attacks. The operation is very similar, and the danger of hemorrhage or infection not unlike.

As a dressing for condylomata in women, Dr.

C. E. Warren (*Med. Fortnightly*) recommends the following ointment which is applied after cauterization:

R. Belladonnæ ext gr. xvi
Cocainæ hydrochlorat. gr. xxxvii
Vaseline. ̄ ii

M. Sig:—For external use.

THE TREATMENT OF BURNS.

By J. W. LINDSEY, M.D.,
OF CLAYSBURG, PA.

I have no doubt that your method of treatment of burns, advocated in the December issue of the *College and Clinical Record*, would be a good one in the hospital or in a rich family; but where you have poor people, and are at a great distance from hospitals, the object is to do good work skillfully and with the smallest expense possible. Allow me, therefore, to present what is partially a new as well as a very successful mode of treating burns.

I was recently called on about two o'clock P.M. by a brother of a young man æt. 18 years, who lived about five miles from here. He stated to me that his brother had been making fire in an old Dutch oven, and used oil, and when he set the can away, possibly eight or ten feet from the oven, and lighted it, it ignited and exploded, pouring the oil almost all over the entire front surface of his limbs from the knees to his umbilicus and between his thighs, then leaving a space of about six or seven inches, and involving the whole breast. His arms and hands were burned up to the shoulders, and his right hand was so badly drawn and burned that the tendons of all his fingers were jumped over the last joints. His tongue was greatly swollen and burned, so that the outer coating came off; his lips were about three times as thick as normal. The left side of the face and ear were badly burned, and the hair of his head was almost entirely burned away.

His penis and scrotum were also badly burned, and for seven days it was necessary to use a catheter; the scrotum was swollen as large as three fists, and the penis as thick as a man's arm. He was breathing forty-eight times a minute, and when breathing he would whistle so that you could hear him twenty-five to thirty feet away.

I gave him $\frac{1}{4}$ gr. sulphate morphia every three or four hours until asleep. I reduced the tendons of his hand to their normal places, and dressed him with the following mixture:

R. Sodii bicarbonatis, ̄xvj
Ol. lini, Oij.

This made a heavy paste, which I left on until the next day. I then used:—

R. Sodii bicarb., ̄xvj
 Acidi carbonici, 3j
 Ol. lini, Oij. M.

Fiat unguentum.

SIG.—Spread over the entire surface of the burn.

I kept this on for three or four days.

In a few days I dissected all the burned tissues away except on the penis and scrotum, which I left for about ten days to two weeks, when it healed off itself.

I then dressed him with the following ointment:—

R. Iodoformi, ̄iv
 Zinci oxidi, ̄iv
 Ol. lini, Oj. M.

Fiat unguentum.

SIG.—Apply on muslin over the affected surfaces.

After a week I substituted the following:—

R. Balm of Gilead buds juice, Oj
 Sheep's tallow, ̄iv
 Rosin, ̄iv
 Beeswax, 3 ss. M.

Fiat unguentum.

SIG.—Apply on muslin cloths once or twice a day.

On the 20th day I made passive motion of the elbows and fingers, and so on until the 31st day, when all was healed.

I did no skin grafting, and had no trouble, as all the healing was in good condition from the beginning. Granulations were set up very early, and continued in a healthy condition.

He is not crippled in any manner except the weakness of his breast, but the muscles and mammary glands were all burned away, and as a consequence he has not much strength. As for marks, there are very few, none that show on the face or ear; and on his hands a slight redness is discernible, but there are no scars. *Coll. and Clin. Record.*

THE RELATION OF PELVIC DISEASE AND PSYCHICAL DISTURBANCES IN WOMEN.

By GEORGE H. ROHÉ, M.D.,

Superintendent of the Maryland Hospital for the Insane.

In this report for 1892, I gave the detailed history of eighteen cases of insanity in women, in whom the uterine appendages were removed for ovarian, tubal or other pelvic disease. Since that report, four additional cases were operated upon. A review of the cases will show, that even in apparently the most hopeless cases a beneficial effect upon the mental functions is obtained by the removal of a persistent source of local irritation. Thus is one case of hysterolepsy with violent maniacal attacks, lasting over eight years, complete recovery was ob-

tained. In four cases of puerperal insanity, two of over five years' standing, three recoveries followed the operation, and the remaining case was greatly improved. Three cases of profound melancholia recovered sufficiently to be discharged from the hospital. In nearly every case operated on, decided physical and mental improvement were noted. While no claim is made that gynecological operations are generally indicated in insane women, it is held that where sufficient disease exists to demand treatment on its own account, the mental disturbance of the patient should be an additional reason for early and effective interference. In the present conservative tendency among gynecologists, there is danger of delaying radical measures too long. If this delay is injudicious in the sane, as I firmly believe it to be, it is no less in the insane, where recovery of mental health may be retarded or rendered impossible, by hesitancy or neglect.

I have been subjected to criticism, some of a rather savage character, for my work in this line. Some of my critics know, confessedly, little of the great advances made by modern gynecology, while others were no less ignorant of the results of recent studies of mental pathology. I have refrained from replying to these criticisms because I could afford to await results. The facts here presented will, I am sure, be regarded by all unprejudiced minds as sufficient answer to the criticisms upon my course.*—*The Coll. and Clin. Record.*

CLASS-ROOM NOTES.

—Prof. Keen says that *Galistones* occur three times as often in women as in men.

—Syphilis, Prof. Brinton says, predisposes to the non union of *Fractured Bones*.

—Prof. Keen says *Jaundice* is a rare complication met with in cases of abscess of the liver.

—Prof. Wilson says *Human Vaccine Lymph* retains its vitality longer than the bovine lymph.

—Prof. Parvin says that the labor occurring at the birth of a male child is generally longer than that of a female.

—Prof. Wilson says if, in cases of typhoid fever, symptoms of *Peritonitis* arise, opium should be administered freely.

—Prof. Parvin says a woman suffering from *Uterine Hemorrhage* bears opium better than almost under any other condition.

—Prof. Parvin thinks that the *Lochial Discharge* is less in women who nurse their children than in those who do not.

—Prof. Wilson says that the tendency in children, during an attack of *Enteric Fever*, is to constipation and not to diarrhea.

*The excellent table accompanying this paper, and amply confirming the writer's conclusions, is unavoidably omitted.

—*Digitalis*, Prof. Hare says, should not be administered in the presence of high fever, as it does not act when such fever exists.

—Prof. Wilson says that *Diphtheria* is a disease of all climates and seasons, but that civilization predisposes to its occurrence.

—One of the most common complications occurring during an attack of *Influenza*, Prof. Wilson says, is broncho-pneumonia.

—Antipyrine, phenacetin, and acetanilide are the best drugs, Prof. Hare says, that can be employed for the relief of nervous pain.

—All conditions of *Flatulence*, especially gastric flatulence, Dr. Salinger says, will be found to be greatly benefited by dermatol.

—Grave cases of *Jaundice* occurring in recently born children, Prof. Parvin regards as a sign that septic infection has taken place.

—Vomiting which is present at the onset of an attack of *Scarlet Fever*, Prof. Wilson says, will generally subside of its own accord.

—Decreased arterial tension and increased venous pressure both cause *Dropsy*, and in both conditions Prof. Hare says *digitalis* is indicated.

—Arsenic, Prof. Hare says, has been found to be useful in stopping the vomiting occurring in those suffering from *Cancer of the Stomach*.

—Prof. Wilson says *Human Lymph* should not be taken from a child under three months of age if it is desired to use it for inoculating other cases.

—Prof. Keen is of the opinion that there is scarcely any *Benign Tumor* that may not undergo degeneration and become malignant in character.

—In administering the bitartrate of potassium as a purgative, Prof. Hare says that the compound jalap powder should always be combined with it.

—*Malignant Tumors* of the breast, Prof. Keen says, seldom appear before the age of thirty five, excepting sarcoma, which may appear at any age.

—Prof. Hare says it is well always to combine with chloral hydrate a bromide, as the chloral increases reflex irritability, which the bromide will prevent.

—If during the administration of *Chloroform* the pupils suddenly become dilated, Prof. Hare says there is great danger of sudden death taking place.

—*Vaccination*, Prof. Wilson says, should be performed in three places, since the greater the amount of pox produced the greater is the immunity that follows.

—Cases of *Diabetes* occurring in gouty persons, Prof. Hare says, have been found to be greatly benefited by the administration of arsenic combined with lithia.

—Prof. Hare says, that it is much better to *Reduce the Temperature* in cases of fever by

the aid of cold baths or sponging, than by the employment of antipyretic drugs.

—In *Removing a Placenta* from its attachments to the uterus, Prof. Parvin thinks that it is dangerous to pull on the cord during the period that the uterus is contracting.

—Enlarged glands, in cases of *Carcinoma*, should always be removed, Prof. Keen says, at the time when the tumor itself is removed, if they be accessible in any manner possible.

—As a rule, Prof. Keen says, *Chronic Obstruction of the Bowel* is generally at or below the ileo-cæcal valve, while an *Acute Obstruction* is generally at or above the ileo-cæcal valve.

—Prof. Brinton says, that the *Non-union of a Fractured Bone* is often due to the fact that on account of the low vitality of the patient, the callus, after having formed, is absorbed again.

—*Hemorrhage* occurring in a patient two or three weeks after the delivery of a child has occurred, is very frequently caused, Prof. Montgomery thinks, by retroversion of the uterus.

—Alcohol should be administered to patients suffering from *Diphtheria*, and as a rule it will be found that they are able to take large amounts without manifesting any bad symptoms.

—In all cases in which a *Spontaneous Fracture* of a bone occurs, without undue force having been applied to it, Prof. Keen says, malignant disease of the bone should always be suspected.

—Prof. Parvin has observed that *Excessive Development* in the size of the female breast is of a more frequent occurrence than a *total absence* of the breast. But both conditions are very rare.

—Dr. Da Costa says that plugs of gauze soaked in a strong solution of antipyrine will be found very efficient in stopping *Hemorrhage* from the nose, the antipyrine acting as a good styptic.

—Prof. Parvin says *Eclampsia*, occurring in a pregnant woman before labor, is fatal in about fifty per cent. of cases, while if it occurs after labor, it is fatal only in about eight per cent. of the cases.

—*Diarrhœa due to Proctitis*, Prof. Hare says, will often be cured by injections of the chlorate of potassium in the strength of twenty grains to the ounce,—one ounce to be injected at a time.

—*Quinine*, Prof. Hare says, will have no beneficial effect in cases of malarial fever, unless it be given soon enough before the occurrence of an attack, so that it will be absorbed before the attack manifests itself.

—Prof. Solis-Cohen says that one of the best *Throat Washes* in cases of degeneration of the epithelium is five grains of bicarbonate of sodium to the fluid ounce of water, which mixture is to be used as a gargle.

—All cases of ulcers which will not yield to

treatment, Prof. Keen says, should be suspected of being malignant in character, excepting when the ulcer be on the leg and is due to a varicose condition of the veins.

—In making a *Digital Examination* in a case of face presentation, great care must be exercised by the obstetrician; it must be made very gently, so that no injury be inflicted to the face, especially to the eyes.

—Prof. Parvin thinks that a woman, who after delivery has a *pulse above 100 per minute*, is in danger of having a uterine hemorrhage, and the obstetrician should not leave her until the pulse has decreased in number.

—Prof. Wilson says the following spray will be found useful in *Diphtheria*:—

R. Caffeinæ,	gr.xx	
Sodii bicarb.,	gr.v	
Aquæ, q. s. ad	f5ij.	M.

Sig.—Apply locally as a spray to the membrane.

—Prof. Hare says the proper amount of *Bismuth* to be administered in cases of excessive diarrhoea, or in cases of excessive irritability of the stomach, is at least ten grains, and sometimes as much as sixty grains must be given.

—Prof. Wilson fears the use of the chlorate of potassium in cases of *Diphtheria*, not only on account of it not influencing the disease favorably, but more on account of the injurious effect which it exercises on the kidneys.

—Prof. Keen thinks that the majority of the cases of *Appendicitis* need no surgical interference. The reason that so many cases prove fatal which have been operated on is due to the fact that surgical interference has been done too late.

—In true *Angina Pectoris*, Prof. Hare says the heart feels as if it were contracted; while in *Pseudo-angina Pectoris* the heart gives a sensation to the patient as if it were in an expanded condition, too large for the cavity in which it is contained.

—The higher up a *Volvulus* of the bowel has taken place, the less will be the amount of urine voided, Prof. Keen says. It is due to the fact that the higher up the volvulus occurs, the less will be the amount of absorption that will take place from the bowel.

—Prof. Hare says in very obstinate *Chronic or Subacute Rheumatism*, which will not yield to the ordinary treatment, *cimicifuga* will sometimes do good, especially in cases in which the rheumatism is situated in the muscles rather than in the joints themselves.

—The following local application, Prof. Hare says, will be found serviceable in cases of *Bronchitis*, occurring in infants, associated with some nervousness:—oil of amber one part, and olive oil three parts. This to be applied to the back and front of the chest.

—For the nervous symptoms occurring in children suffering from *Cholera Infantum*, Dr. Ashton says hypodermic injections of morphia, sulphate, gr. $\frac{2}{100}$ — $\frac{1}{100}$ and atropine sulphate, gr. $\frac{8}{100}$ — $\frac{1}{100}$ will be found useful, but their effect must be carefully watched.

—Prof. Keen says that after a patient has passed through an attack of *Renal Colic*, the bladder should always be evacuated by a Bigelow or some similar evacuator, so as to rid the bladder of the stone, which if not removed may form a nucleus for the formation of a large stone.

—Prof. Parvin says that *Vomiting* occurring during the first stage of labor is regarded by some as a good omen. But if vomiting occurs during the second stage, accompanied by cessation of labor and with exhaustion of the patient, the immediate delivery of the child is indicated.

—Prof. Wilson recommends the following treatment of *Rheumatic Fever*:—fifteen grains each of the salicylate of sodium and bicarbonate of sodium every hour until the urine becomes distinctly alkaline. Then stop the bicarbonate and continue the salicylate until the pain and fever disappear.

POTASSIUM PERMANGANATE AS AN IMMEDIATE ANTIDOTE TO MORPHIA.

The discovery of a reliable antidote is at all times a practical and decided step forward in medical knowledge and in the direct application of relief to human suffering. These thoughts occur to us at this time, in view of the recent public exhibition of the fact that the effects of morphia may be counteracted by an antidote that does not act through any relation to the power of mydriatic and myotic antagonism, as may atropia when similarly employed.

Our esteemed contemporary, the *Boston Medical and Surgical Journal*, in its issue of February 1st, 1894, gives a detailed account of the personal experience of a New York physician in this line of investigation, and expresses its well-founded views on the procedure and the antidotal action of the remedy employed. From these we freely quote.

At a meeting of the Medical and Surgical staff of the West Side German Clinic, 42nd Street, New York, Dr. William Moor, one of the physicians to the clinic, against the earnest protestations of those present, swallowed three grains of sulphate of morphia in solution, and immediately afterward drank a solution of four grains of permanganate of potassium in four ounces of water. He was carefully watched, but none of the ordinary effects of morphia on the system were observed, and he has since stated that he experienced no ill effect whatever

from the poisonous dose taken. Dr. Moor had made a special study of therapeutics and toxicology previous to the demonstration mentioned, and had experimented with rabbits, and also on his own person. He at first took an eighth of a grain of morphia, then a quarter of a grain, then half a grain, and finally three-quarters of a grain; and when he took permanganate of potassium afterward, there was no apparent toxic effect from the morphia. In his demonstration at the German Clinic he would have been perfectly willing, he says, to take six grains of morphia instead of three. Morphine, or any of the salts of opium, he claims, is immediately rendered harmless by contact with the permanganate. The antidote at once seeks the poison, passing by the other substances in the stomach. The soluble salt is acted upon by the permanganate 75,000 times more quickly than albumin, and several thousand times more quickly than peptone. Of course, the antidote should be administered as promptly as possible after the morphia is taken.

Since this demonstration, it has been claimed that the honor of the discovery is really due to Dr. William Condry, of London, and that Dr. J. B. Mitchell and other writers have referred to the efficacy of permanganate of potassium as an antidote; but, at all events, it is certainly true that its action in this regard has never been generally recognized by the profession. Lacerda recommended permanganate as an antidote to serpents' poison. Experiments indicate that it destroys the constitution of such poisons when brought into direct contact with them, but when introduced into the general system does not control their action. Dr. Moor is now engaged in making a series of experiments to test the power of the permanganate as an antidote against strychnia, cocaine, and other poisons. In the case of the first-named, its action is said to be much slower than upon morphia.

Morphia is well known to be a powerful reducing agent, and it is doubtless by oxidation that the permanganate acts. As with serpent poison, so with morphia, it is undoubtedly essential that the permanganate should enter into direct contact with it. After the morphia has been absorbed, the permanganate can have no action upon it. This physiologico-chemical restriction necessarily limits very much any value as an antidote which it may be proved that it possesses. Really, as we already hinted, the most surprising thing about this incident which has attracted much attention in the daily press is the fact that the action upon each other of two substances, whose properties are so well known as are those of morphia and permanganate, should not long since have been accurately determined and described and generally recognized. As a matter of fact, the usual therapeutic text-books

and toxicologies are silent on this subject.—*Ed. Coll. and Clin. Record.*

RECENT SUGGESTIONS IN THERAPEUTICS.

ASIATIC CHOLERA.—Two or three tumblerfuls daily of infusion of black coffee, strong and hot, causes improvement in patient's condition, increases secretion of urine and strengthens pulse. (PROF. D. P. DUEBELIER, *Vratch*, No. 42, 1893.)

DIPHTHERIA.—One-half to 1 teaspoonful *sp. turpentine* four times daily. Also, *Tr. ferri-mur.*, 5j (31 grammes); *potass. chlorat.*, ʒiiss (6 grammes); *ac. mur. dil.*, ʒij (8 grammes); *glycerin*, q. s. ad ʒiv (124 grammes). Teaspoonful every three hours; swab throat with mixture. (C. FERDINAND DURAND, *Archives of Pediatrics*, January, 1894.)

Acetous vapor, applied by the author in one case as follows: One quart (litre) of *malt-vinegar* placed in a steam-kettle on fire, pouring a stream of vapor into the room; the child was covered by an umbrella to focus the steam; tonsils and pharynx painted with brandy every two minutes until cough, expectoration and drowsiness occurred. (W. A. GREET, *British Medical Journal*, January 27, 1894.)

Calomel, 1 to 5 grains (0.065 to 0.32 gramme), every five hours, according to age of patient; catharsis checked by *Dover's powder*. (W. R. McMAHAN, *Northwestern Lancet*, January 15, 1894.)

Corrosive sublimate solution, 1 to 2 per 1000; *Laplace's solution (corrosive sublimate, 1; tartaric acid, 5; to water, 1,000)*; or, *corrosive sublimate, 1; common salt, 6; water, 1,000*; 2 drachms (8 grammes) every four hours used as a spray; gargle with *thymol, boric acid*, or lime-water. (ESCHERICH, *Wiener klinische Wochenschrift*, vol. vi, 1893.)

DYSMENORRHEA.—If congestive or inflammatory, *citrate of iron and quinine*, 1 gramme (15½ grains); alcohol (90 per cent.), 10 grammes (2½ fluidrachms); water, 190 grammes (6 fluidounces); one teaspoonful before meals in a little water or white wine, during intermenstrual period. During period, *salicylate of soda* and *analgesin*, aa 0.15 gramme (¼ grain) every two hours, alternated with tincture *viburnum prunifolium*, 2 grammes (31 minims); *Elixir of Garus*, 30 grammes (1 fluidounce); syrup of *peppermint*, 15 grammes (3¾ fluidrachms); distilled water, 100 grammes (3¼ fluidounces). If pain be intense, with excitement and insomnia, give, at bed-time, *hydrate of chloral* and *bromide of strontium*, aa 6 grammes (1½ drachms); tincture of *canibus Indica*, 15 drops; syrup of orange-peel, 60 grammes, 1¾ fluidounces). Tablespoonful

in a little fresh water, second dose during night, if necessary. If stomach is fatigued, injection of *chloral hydrate*, 4 grammes (1 drachm), and water, 200 grammes (6½ fluidounces). Opium not to be employed in women with tendency to constipation, as it increases tympanites and dyspeptic symptoms. If absolutely necessary, use following injection: *Laudanum* (Sydenham's), 20 drops; *pulverized camphor*, 0.20 gramme (¾ grains); *yolk of egg*, 1; water, 200 grammes (6½ fluidounces). To be administered at night three hours after last meal.

If membranous, above injection each evening, or tincture of *asafoetida*, 5 grammes (1¼ fluidrachms); tincture of *belladonna*, 20 drops; *laudanum* (Sydenham's), 10 drops; lukewarm water, 100 grammes (3¼ fluidounces). Every four hours until flow appears, vaginal injection of water at 45° C. (113° F.), 2 litres (quarts); essence of *thyme*, 20 drops. (A. LUTAUD, *Journal de Médecine de Paris*, December 31, 1893.)

EPILEPSY.—Injection to be given in intervals of attacks: *Chloral*, 2 grammes (½ drachm); *bromide of potassium*, 2 grammes (½ drachm); *yolk of egg*, 1; water, 200 grammes (6½ ounces). If due to syphilis, general treatment: *mercurial frictions*, 6 grammes (1½ drachms) of ointment daily for three weeks or longer, with *iodide of potassium* in progressive doses (2, 8, 10 grammes—½, 2, 2½ drachms—daily). When epileptic symptoms cease, mixed treatment: for one month, 3 mercurial frictions with *iodide of potassium*; for two months, after meals, a tablespoonful of the following mixture: *Bromide of potassium*, 30 grammes (1 ounce); *phosphate of sodium*, 20 grammes (5 drachms); *bitter orange peel*, *vin de Lunel*, each 250 grammes (8 ounces). If menstrual, *antipyrin*, 0.75 gramme (12 grains); *bicarbonate of sodium*, 0.25 gramme (4 grains); for 1 cachet,—3 daily, 1 in six hours. *Digitalis*, 0.15 to 0.25 gramme (2¼ to 4 grains) of powdered leaves, to be added if there is arterial hypotension; injections of 10 drops of *laudanum* for abdominal pain. (LEMOINE, *Revue générale de clinique et de thérapeutique*, p. 626, 1893.)

Opium treatment as prescribed by Flechsig: *Extract of opium*, 15 grains (1 gramme) daily for six weeks; then *bromide*, 30 grains (2 grammes) four times a day. (DE GARMO, *Post-Graduate*, January, 1894.)

R. Potass. bromidi, ʒ ss (16 grammes); *tinct. belladonnae*, ʒiij (12 grammes); *infusi gentiane co.*, ad ʒ viij (248 grammes). M. Sig.: Cap. ʒ ss (15 grammes) ter in die. *R. Camph. monobrom.*, gr. xlvij (3 grammes); *ext gentiane*, q. s. ut fit massa, et div. in pil. no. xij. Sig.: Cap. unam hora somni. (PROF. D. CAMPBELL BLACK, *British Medical Journal*, January 6, 1894.)

ERYSIPELAS OF LIMBS.—Patient anæsthetized, affected parts incised, fluid pressed out, and 60-per-cent. ointment or solution of *ichth-*

zol rubbed into wounds. A layer of ointment is applied, covered by gauze or wool, and limb suspended vertically. Dressing changed twice daily. (FELSENTHAL, *Zeitschrift für Kinderheilkunde*, December, 1893.)

FACIAL, of the petechial, copper-colored type: Local applications of *ichthyol* ointment. General treatment: Cold baths, methodically given, milk and alcohol forming part of diet; if cardiac symptoms, injections of neutral *sulphate of sparteine*, 0.10 gramme (1¾ grains) in twenty-four hours, divided in three doses. (JUHÉL-RENOY and BOLOGNOSIE, *Archives générales de médecine*, January, 1894.)

Local applications of *compresses* soaked in solution of *corrosive sublimate*, 1 to 1000, as hot as patient can bear, renewed as often as possible. *Sulphate of quinine* internally; diet of soup and milk. (E. L. LABANOWSKI, *Archives de médecine et de pharmacie militaires*, January, 1894.)

Pilocarpine, ⅓ grain (0.01 gramme) by injection, with from 15 to 30 minims (1 to 2 cubic centimetres) of fluid extract of *pilocarpus* three times daily. In cases marked by general asthenia or cardiac degeneration, *quinine* and *iron*, with topical applications of *ichthyol* ointment. (A. A. ESHNER, *Philadelphia Polyclinic*, January 13, 1894.)

Creasote, 2 drops in *acacia emulsion*, 1 ounce (30 grammes) internally every three hours, in teaspoonful doses; *lead-water* and *laudanum* externally. Improvement in two days; complete cure in five days. (J. W. COLLINS, *Columbus Medical Journal*, December, 1893.)

ERYSIPELAS OF THE NEWBORN.—Sprays and hot applications of *boric acid*, with injection twice daily of 20 grammes (5 fluidrachms) of salt water or *artificial serum* into subcutaneous cellular tissue. (LEMAIRE, *Thèse de Paris*, 1893.)

GUAIACOL.—Of value in various infectious diseases of children. To lower febrile temperature, 2 to 3 grammes (½ to 1 drachm) externally on anterior surface of superior extremities. Effect lasts from four to six hours, accompanied by more or less abundant perspiration. No untoward effects, but, being as yet in the period of probation, caution in its use is recommended. (FEDERICI, *Revue mensuelle des maladies de l'enfance*, January, 1894.)

IODOFORM.—Formulæ in use by author. *Iodoform gauze*: Soak a piece of gauze, ten metres in length, previously sterilized by boiling, in following solution: *Sulphuric ether*, 700 grammes (22½ fluidounces); *glycerin*, 100 grammes (3¼ fluidounces); *iodoform*, 50 grammes (1½ fluidounces). Wring out and hang up in dark room at temperature of 30° C. (86° F.). *Ethereal solution of iodoform for injections*: *Sulphuric ether*, 95 or 90 parts; *iodoform*, 5 or 10 parts. *Iodoform*

vaselin: White *vaselin*, 90 to 97 grammes (3 to $3\frac{1}{4}$ ounces); *trituated iodoform*, 10 to 3 grammes ($2\frac{1}{2}$ to $\frac{3}{4}$ drachms). *Iodoform Collodion*: 10 grammes ($2\frac{1}{2}$ drachms); *iodoform*, 1 gramme ($15\frac{1}{2}$ grains). *Hard iodoform crayons* (formula of the Bichât Hospital): *Powdered iodoform*, 10 grammes ($2\frac{1}{2}$ drachms); *gum tragacanth*, 0.50 gramme ($7\frac{3}{4}$ grains); pure *glycerin*, sterilized water, aa q. s. as little as possible. *Soft iodoform crayons*: *iodoform*, 8 grammes (2 drachms); *gelatin* or *cacao-butter*, 2 grammes (31 grains). (TERRIER, *L'Union Médicale*, December 30, 1893.)

MENINGOCELE REMOVED BY OPERATION.—Child about 6 weeks old. Tumor three and one-half inches in height, eight and one-half inches in circumference at largest part. Slight hydrocephalic enlargement of head. Base of tumor and adjacent scalp shaved and cleansed antiseptically; 5 ounces (155 grammes) of clear fluid withdrawn. Skin divided by two curved incisions at base, separating tumor slightly from meninges which were transfixed, and cut across to a similar on either side. In doing so a small slice of brain-substance was removed. Several small vessels ligated, owing to hæmorrhage. Membranes and skin united separately by carbolized-silk sutures, wound dressed with dry lint, firm support being maintained by several strips of Mead's plaster. Sutures from membranes and ligatures removed on eighth day. Ten months after operation. child well-nourished, stout, bright, and in perfect health, except that hydrocephalus has markedly increased. (P. H. MACGILLIVRAY *Australian Medical Journal*, October, 1893.)

MIGRAINE.—When due to anæmia: *Phenacetin*, 10 grains (0.65 gramme); *sodium bicarbonate*, 10 grains (0.65 gramme). M. ft. i chart. (DE GARMO, *Post-Graduate*, January, 1894.)

RHEUMATISM.—Compresses soaked in solution of *salicylic acid*, 20 grammes (5 drachms); alcohol, 100 grammes ($3\frac{1}{4}$ ounces); *castor oil*, 200 grammes ($6\frac{1}{2}$ ounces), night and morning, to affected joints. Addition of 5-per-cent. *chloroform* sometimes useful. *Salicylic acid* present in urine twenty minutes after application of compresses. (RUEL, *Revue Médicale de la Suisse Romande*, No. 8, 1893.)

When not desirable to give *salicylic acid* internally, give by rectal injection through the œsophageal tube, passed eight inches into rectum: 90 to 120 grains (6 to 8 grammes) *sodii salicyl.*; 25 minims (1.6 grammes) *tinct. opii*; 3 ounces (93 grammes) water. (ERLANGER, *Deutsches Archiv für klinische Medizin*, B. li, H. 2 and 3.)

Electricity, as follows: When joints are painful, current of 10 to 20 milliampères, in various directions, from ten to twenty minutes. When motion is difficult and muscles are wasting, negative pole to muscles and nerves, in-

terrupting current frequently to cause contraction. Tender points touched with positive pole and constant current or faradic brush every two or three minutes. (MASSY, *Archives d'Electricité Médicale*, November 15, 1893.)

ACUTE ARTICULAR: Asaprol, in cachets of 0.50 to 1 gramme ($7\frac{3}{4}$ to $15\frac{1}{2}$ grains), or solution of *asaprol*, 15 grammes ($\frac{1}{2}$ ounce); water, 250 grammes (8 fluidounces). From 3 to 6 teaspoonfuls in twenty-four hours, in sweetened water flavored with *anissette* or *curacao*. Excellent results in 15 cases of acute and 21 cases of subacute rheumatism.

The following may also be employed in suitable cases: *Salicylate of sodium*, 15 grains ($\frac{1}{2}$ ounce); water, 250 grammes (8 fluidounces). From 4 to 8 tablespoonfuls in twenty-four hours in sweetened water, to which a small quantity of brandy, cherry cordial, or rum has been added. If but 4 grammes (1 drachm) of *salicylate of sodium* are given daily, doses every four hours; if 8 grammes (2 drachms), every two hours. *Diuretics* to facilitate elimination of drug. Continued in doses of 2 to 4 grammes ($\frac{1}{2}$ to 1 drachm) for ten days, to prevent relapse. (DUJARDIN-BEAUMETZ, *Bulletin général de Thérapeutique*, January 15, 1894.)

TABES DORSALIS.—For lightning pains, *phenacdin*, 0.50 gramme ($7\frac{3}{4}$ grains) in wafers every half-hour until 4 grammes (1 drachm) have been given. If not well borne *phenozone* hypodermatically, or *hydrochlorate of morphine* combined with *sulphate of atropine* hypodermatically. (GRASSET, *Journal de Médecine de Paris*, No. 48, 1893.)

TRAUMATIC TETANUS.—*Chloral*, 7 grains (0.45 gramme) hourly, with 4 drops of freshly-prepared fluid extract of *calabar-bean* every two hours, brought about recovery in five weeks in a boy of 10 years. (RADCLIFFE, *Medical Press and Circular*, January, 3, 1894.)

WHOOPING-COUGH.—*Bromoform*, lauded by various authors in this affection, may cause toxic symptoms unless care be observed in its administration. The last dose in the bottle may, owing to the weight and insolubility of bromoform, contain an excess, no matter in what way it may be suspended. This last dose, therefore, should be thrown away, or the drug supplied in a pure form, the nurse being instructed to supply each dose separately. (F. W. BURTON-FANNING, *British Medical Journal*, January, 6, 1894.)

Hydrochlorate of quinine, three times daily, at 6 A.M., 2 P.M., and 10 P.M. Dose, 0.01 gramme ($\frac{1}{6}$ grain) for each month of child's age, 0.10 gramme ($1\frac{3}{4}$ grains) for each year; not more than 0.40 gramme (6 grains) for child of 4 years. When improvement occurs, reduce to two doses daily; after complete cure, one dose at night for some time. Of special value when pulmonary complications are present.

(BARON, *Annales de la Société médico-chirurgicale de Liège*, December, 1893.)

Phenacetin, 8 grains (0.52 gramme); *glycerin*, 3 ounces (93 grammes). Half a teaspoonful to a child 1 year old every two hours until paroxysms become fewer and less intense. (G. G. THORNTON, *Medical Brief*, February, 1894.)—*Universal Medical Journal*.

PATHOLOGICAL SOCIETY OF LONDON.

Meeting of December 19, 1893.

Dr. SOLTAU FENWICK presented a specimen of *diphtheria of the stomach* from a child of 3 years who had suffered from croup. Dyspnoea coming on, tracheotomy was performed, but death followed next day. At the post-mortem examination, primary laryngeal diphtheria was found, extending down into the finer ramifications of the bronchial tubes, the tonsils, pharynx, and œsophagus being free from the disease. The stomach was entirely lined with membrane, extending into the pylorus a distance of one-third inch. The lymphoid tissue of the mucous membrane itself was considerably increased. The interesting features of the case were the involvement of the entire surface of the stomach, the absence of membrane in the pharynx and œsophagus, the complete anorexia and vomiting, and the absence of free hydrochloric acid from the contents of the stomach. Diphtheria of the stomach is rare, and occurs almost always in connection with pharyngeal diphtheria in children. Mr. S. G. SHATTOCK had seen a similar case, in which the œsophagus had been free.

Mr. BOWLEY showed for Mr. PAUL, of Liverpool, a *tooth-bearing dermoid of the face*. The patient, a boy of 5 years, was born with an irregular patch of skin on the left cheek, in which a tooth appeared some six months prior to observation and removal. The tumor had no connection with the bone, and no teeth were missing from the jaws. The tooth was a left upper lateral incisor, and beneath it there was a second, smaller, and corresponding to that of the permanent set.

Dr. FELIX SEMON and Mr. S. G. SHATTOCK reported the *sequel of a case of anomalous tumor of the larynx*, which they had brought to the notice of the society in May, 1891. The growth sprang from the left arytaeno-epiglottidean fold, and appeared like an angioma. After removal by the galvano caustic loop it was seen to be a delicate papilloma incased in a shell of partly fresh, partly organized blood-clot. The authors had, at the time, called attention to the unusual situation of the tumor, to its structure, which was more like that of papillomata of the bladder than of the upper air-passages, and to the unique fact

of spontaneous hæmorrhages occurring in connection with and the formation of a blood-shell around the papillary growth. Four months after operation there was a recurrence of the growth, and in a month and a half it was larger than it had been originally. It was again removed in the same manner, and, evidences of malignancy being present, subhyoid pharyngotomy was performed and the tumor radically removed. The patient, a man of 44 years, died four days after operation. At the post-mortem examination, œdema and intense congestion of the brain were found, but no cause for this condition could be determined. Histologically the growth was papillary, delicate and thickly incased with blood-clot, extensions of which passed between the different processes composing the tumor. The investing epithelium of the mucous membrane was quite distinct from that of the growth, consisting of stratified squamous cells, while the other was made up of cubical or cylindrical cells, not more than one layer in thickness in some places. The growth projected beyond the general surface, and infiltrated the deep parts, resembling in this a columnar-celled or duct carcinoma of the breast, with which the authors compared it, regarding it likely that the growth arose from the mucous glands. Assuming this to be the origin, in the process of growth, a portion projected from the surface, allowing of removal, while it extended deeper, infiltrating the structures below the level of the mucous membrane, and beyond the reach of operation. The hæmorrhage was explained by the delicacy and vascularity of the tumor. This is the first case described in which a primarily malignant disease of the larynx simulated in its early stages an angioma. Mr. LENNOX BROWNE, who had previously stated that this tumor might have been an instance of the transformation of benign into malignant growths by endo-laryngeal operations with the galvano-cautery, withdrew this statement after the record of the histological examination.

Dr. ROLLESTON reported *three cases of mediastinal abscess in connection with the œsophagus*. The first patient was a woman of 30 years, who suffered from sore throat, and who presented a swelling on the right side of the neck above the clavicle. There was some dysphagia, and pus mixed with blood was coughed up. Death occurred from hæmorrhage. The cause of suppuration was obscure, there being no disease of the bones. In the second case suppuration followed a stricture due to a corrosive poison, and took place around the middle of the œsophagus. The third case was in a man of 50, who, following a violent effort, was seized with pain and vomiting. Pleural effusion developed in left side, and death occurred in two days. The cause of the perforation of the œsophagus was not known, though apparently it bore some relation to the violent effort.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Meeting of December 6, 1893.

Dr. GRAHAM BROWN called attention to certain changes in the circulation caused by pyrexia. In order to determine the viscosity of the blood at different temperatures, he has devised an ingenious apparatus by which the rate of blood-flow can be directly calculated. By means of a formula he is able to determine the rate of flow of distilled water at any temperature, given the rate of flow at another. This formula holds good for water, solutions of serum-albumen, serum-globulin, phinogen, and blood-plasma. If, however, defibrinated blood were used, the results were not in accord, since heat decreased its viscosity much more than when the same fluid did not contain the corpuscular elements. The calculations of the author seem to indicate that in fever the heart would have about one-tenth less work to do in driving the blood through the vessels, solely taking into account its decreased viscosity.

Mr. A. G. MILLER showed two patients with *strumous disease of the extremities*, whom he had treated by Bier's *new method of passive congestion*. One patient had suffered from lupus vulgaris of both feet. One leg treated by passive congestion healed sooner than the other, which had been treated without. A tourniquet should be applied with sufficient force to stop, in great part, the venous return, lengthy applications being of more service than short alternations of pressure and relaxations. The method is based upon the theory that congestion exercises an influence upon the growth of tubercle bacilli, as evidenced by the fact that a congested lung rarely becomes tuberculous.

Dr. CAIRD showed a case in which he had performed *Wietzel's gastronomy*. The operation was begun in a usual manner, and an opening large enough to admit an ordinary lead-pencil was made into the stomach. An India-rubber tube of the same size was introduced and stitched to the walls of the stomach with catgut, the tube being then enveloped in the walls for a short distance and stitched around it so as to form a sort of oesophagus. The tube was then brought through the wound which was stitched around it in the usual way. The tube thus entered the stomach in a totuous manner, thus preventing loss of food by regurgitation or vomiting.

RECENT SUGGESTIONS IN THERAPEUTICS.

AMENORRHOEA.—If due to anæmia: R *Quinin. sulphat.*, ʒiij (4 grammes); *tinct. ferri chloridi*, ʒiiss (46 grammes); *aqua dest.*, ʒiv (124 grammes). M. Teaspoonful four times

daily. If nervous symptoms and headache, *bromides*; if hysteria, *musk*, *asafetida*, and *camphor-gum*. (WILLIAM HENRY, *St. Louis Medical and Surgical Journal*, December, 1893.)

ANÆMIA.—When due to defects in digestion: R *Hæmogallol*, ʒij (8 grammes); *fel. bovis insp.*, r. xl (2.60 grammes); *ext. pancreatini*, ʒij (8 grammes); *strychniæ sulph.*, gr. j (0.06 gramme); *caffeinæ mur.*, ʒj (4 grammes); *ext. colocynth.*, gr. x to xx (0.65 to 1.30 grammes); *ext. tarax.*, ʒj (4 grammes). M. et fiat pil xl. Two t. i. d. after meals. If overstimulation from *strychnine* and *caffeine*, reduce dose to 1 capsule t. i. d. before meals. (W. H. PORTER, *Post-Graduate*, December, 1893.)

CHLORIDE.—Caustics: official solution of *chloride of zinc*; *Michel's paste*; *sulphuric acid* and *asbestos*; Bongard's paste—*chloride of zinc*, *arsenic*, *corrosive sublimate*, and other substances made into paste with *wheat-flour*. Surgery to be rarely resorted to. (RODMAN, *American Practitioner and News*, December 2, 1893.)

CHANCROIDS OF FEMALE GENITALS.—Thoroughly wash away secretions from ulcer, and neutralize with antiseptic. Cleanse twice daily with *hot antiseptic douches of bichloride of mercury*, 1 to 3000, or 5 per cent. *carbolic acid*. Apply *carbolic acid C. P.*; and when ulcers are small and not too close to bladder or meatus urinarius, use a *strong caustic (nitric acid)* until all diseased tissue is destroyed. Neutralize acid with solution of *potassium hydrate* or *bicarbonate of soda*; apply *iodoform*, *aristol*, *acetanilid*, *boric acid*, or other good antiseptic. (E. C. DAVIS, *Atlanta Medical and Surgical Journal*, December, 1893.)

ENDOMETRITIS.—Curettage, with use of endometrial injections of an alcoholic solution of *euphorin* and *sterilized olive-oil* in equal parts. The liquid is injected, by means of a Braun syringe, immediately after curetting, and every four or five days afterward, until cure results. This treatment is successful where curettage alone is inadequate. (PINNA-PINTOR, *Rassegna d'ostetricia e ginecologia*, No. 10, 1893.)

INFLUENZA.—Benzol, in form of emulsion, in lemonade, 5 minims (0.32 gramme) every two and a half hours. General discomfort disappears about two hours after first dose. Temperature normal within twenty-four hours. (WM. ROBERTSON, *Lancet*, November 11, 1893.)

MENTAL DISEASES.—*Duboisine* as a sedative is prompt in action and easy of administration. To be used preferably in the evening. Especially indicated in acute insanity and alcoholism and in violent mania. Dose, 1½ milligrammes ($\frac{1}{4}$ grain), maximum; $\frac{1}{2}$ milligramme ($\frac{1}{30}$ grain), minimum. (MONGERI, *Monograph*, Milan, 1893. Tip. Capriolo.)

THE CANADA MEDICAL RECORD

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MONTREAL, JULY, 1894.

CANADIANS IN THE UNITED STATES.

During a recent visit to the Pacific Coast we were greatly impressed at meeting so many Canadian graduates settled, and for the most part doing remarkably well, all through the United States. One hardly knows which to admire the more : the average high character, scientifically and morally, of the Canadian graduates, or the generous manner in which they have been received and welcomed by our wealthier neighbors. It is true that most of them are now naturalized American citizens, but we cannot for that reason cease to take a deep interest in their welfare and success. It was especially pleasing to see at the San Francisco meeting of the American Medical Association a former Canadian, and a graduate of Queen's College, Kingston, awarded the highest honor in the gift of the profession, namely, the election to the position of president for the ensuing year. In some of the cities, such as Detroit, more than half of the practitioners are Canadians, while in others, such as San Francisco and Chicago, many of the most prominent physicians have come from one or other of the provinces of Canada. It was also very pleasing to note the general elevation of the standard of medical education, all over the United States. As everyone is aware, some of the finest medical schools in the world were to be found in New York, Philadelphia and

Boston many years ago. But at the same time, graduates from medical schools with only two six months courses of study were allowed to practise in most of the States. All this is changed, and since a few years one State after another has required that its practitioners shall have studied for three and in some cases four years before being allowed to practise. In bringing this much desired state of affairs to pass, two men, we think, chiefly deserve the credit,—one who is still living and full of honors, Dr. Osler, formerly of Montreal, but now of Baltimore ; and the other, Dr. Rauch, of the Illinois State Board of Health, who unfortunately has since passed away. By the aid of the powerful pens of these two men, the one in the East and the other in the West, the Medical Profession of the United States bids fair in a few years to be second to none in the world, for character and learning.

CANADIAN MEDICAL ASSOCIATION.

We take special pleasure in calling the attention of our readers to the annual meeting of the above Association, which is to be held this year at St. John, New Brunswick, on the 22nd of August. The latter month has been chosen instead of September, because it was thought that it would be more convenient for the majority of members to get away for their holidays at that time. We earnestly hope that every practitioner in Canada will make an effort to attend this meeting. We should remember that it is a national society, and it will only be by our united efforts, either in reading papers or being present to listen to them and discuss them, that the Association can become worthy of the nation. The railway rate will be either a single fare for the return trip, about thirteen dollars, or at most a fare and a third, about eighteen dollars. After the meeting there are delightful side trips up the St. John River, or up the Kennebecasis, or across the Bay of Fundy to Windsor and Halifax, or over to Portland and Orchard Beach. Unless word is received to the contrary, those who intend being present should pay the full single fare, and obtain a receipt for the same before starting. On presenting this to the Secretary at the meeting they will obtain an order for the return trip at one-

third fare. The profession of St. John is noted for its hospitality, while the list of papers published elsewhere guarantees that the meeting will prove an intellectual feast. We trust that the medical men of Montreal and neighboring towns will send a contingent large enough to be worthy of the occasion, and to show that we are as willing to make considerable sacrifices in order to attend the meeting when held in the East as we expect our brethren to be when it is their turn to leave home. Let everyone, then, make a special effort to attend the meeting at St. John on the 22nd August, when we feel sure they will be amply repaid.

CANADIAN MEDICAL ASSOCIATION.

Elaborate preparations are being made in St. John, N.B., for the reception of the Canadian Medical Association on Aug. 22nd and 23rd next. The gathering will probably be one of the largest the Association has ever had. From reports that come in from time to time it is believed that the profession of the Maritime Provinces will turn out almost to a man. From Montreal, Toronto and points further West there will be large delegations.

The following are some of the papers promised: Cases in practice—R. J. McKechnie, Nanaimo, B.C.; A Year's Experience in Appendicitis—Jas. Bell, Montreal; A Case of Tuberculosis of Arm of 14 years' standing cured by inoculation with erysipelas—W. S. Muir, Truro, N.S.; The Treatment of Diseases of the Ovaries and Fallopian Tubes—A. Laphorn Smith, Montreal; Intestinal Antisepsis in Typhoid Fever—D. A. Campbell, Halifax, N.S.; The Use and Abuse of the Various Caustery Agents in the Treatment of Nasal Affections—E. A. Kirkpatrick, Halifax, N.S.; The Present Status of Asthenopia—F. Buller, Montreal; Eye-Strain Headaches—S. H. Morrison, St. John, N.B.; Note on Epilepsy—W. H. Hattie, Halifax, N.S.; Influence of Mind on Disease—J. A. McKay, Watford, Ont.; Miners heart—R. A. H. MacKeen, Cow Bay, Cape Breton, N.S.; Address in Surgery—S. F. Black, Halifax, N.S.; E. C. Praeger, Nanaimo, B.C.; Some Functional Derangements of the Liver—F. E. Graham, Toronto; Treatment of Certain Forms of Uterine Hæmorrhage—F. S. Bibby, Port Hope; Address in Medicine—Wm. Bayard, St. John, N.B.; Ophthalmic and Aural Cases—Stephen Dodge, Halifax, N.S.; Lengthened Sitzings in Lithapaxy—S. Francis Teed, Dorchester, N.B.

Papers will be read in the order in which they are received by the Secretary. It is impor-

tant that those intending to contribute papers will communicate with the Secretary at an early date.

A NEW BILL FOR THE ESTABLISHMENT OF A NATIONAL BUREAU OF HEALTH.

The new Bill, prepared by Committee of the New York Academy of Medicine, for the establishment of a National Bureau of Health in the Department of the Interior, promises, if it meets with favorable consideration in Congress, to give to the country the most satisfactory national health organization that has yet been proposed.

The Bureau, in accordance with the provision of the Bill, would consist of a Commissioner, appointed by the President, and an Advisory Council made up of delegates, one from each State, designated for this service by the respective governors.

If, as might reasonably be expected, the members of the Council are selected from the State Boards of Health, there would then be brought to the support of the national organization the influence of a body of men each of whom has a well-recognized position in his own community and a legitimate influence upon the representatives of his State in Congress. Their presence on a national board would go far to remove the vague fears that have prevailed in some quarters as to the tendency of a purely central organization to usurp powers, which could more safely and wisely be left to local authorities.

The duties of the Bureau would be to collect and diffuse information upon matters affecting the public health, including statistics of sickness and mortality in the several States; the investigation of experimental and other methods and means of prevention of the causes of diseases; the collection of information with regard to the prevalence of contagious and epidemic diseases, both in this and other countries; the publication of the information thus obtained in a weekly bulletin; to prepare rules and regulations for securing the best sanitary condition of vessels from foreign ports, and for the prevention of the introduction of infectious diseases into the United States, and their spread from one State into another, which rules, when approved by the President of the United States, shall have the force of law; and to ascertain, by a suitable system of inspection, that these rules are properly carried out and enforced; to advise and inform the several departments of the government, and executive and health authorities of the several States on such questions as may be submitted by them to it, or whenever, in the opinion of the Bureau,

such advice and information may tend to the preservation and improvement of the public health; and in general to be the agent of the general government in taking such action as will most effectually protect and promote the health of the people of the United States.

The Act provides that this Bureau shall be responsible for the making of those rules and regulations which are the foundation of systems of quarantine between the various States of the Union as well as between nations; yet these rules, having first received the approval of the President, are to be executed, as hitherto, under the supervision and authority of the Treasury Department. While this limitation of the Treasury Department to purely executive functions may be distasteful to the Marine-Hospital Service, it can hardly be claimed, on the other hand, that this body could adequately perform the multifarious duties above set forth.

One function is bestowed upon the Bureau, which is peculiar to this bill, and would probably be of great benefit—the duty of the Bureau to inspect and report upon the conduct of the quarantine establishments formed under the provisions of this Act.

State and municipal authorities are permitted to enforce, if they so elect, such measures as are directed by the President, in accordance with the recommendations of the Bureau; but if such authorities fail or refuse so to do, then the President shall enforce the rules by such means as may seem appropriate to him.

The quarantine sections of the Bill have, evidently, been very carefully framed; and follow closely the provisions of Senator Harris's bill. No member of the Senate has been more interested in public health legislation than the member from Tennessee, nor is there anyone whose opinion would have more weight in that body.

The Bureau is especially directed to take such action, by correspondence or conference, as will tend most effectually to secure the co-operation of State and local boards of health, in establishing and maintaining accurate systems of notification of the existence and progress of contagious and infectious diseases, and to extend, if possible, such systems to foreign countries.

In general, the motive that appears to have prevailed in the making of this Bill is the one which has led to the most useful public health bodies which the country has so far had. That is to say, the intention seemed to have been to create a central health authority, the business of which shall be the collection of all sanitary knowledge and the prompt diffusion of the same.

If this Bureau is able to deserve the confidence of the country, experience with similar bodies tells us that executive functions will from time to time be given to it. The almost hopeless confusion in which the present Con-

gress is involved may, possibly, prevent this new measure from receiving the consideration it fairly deserves; but the bill has been so carefully prepared and so wisely framed that we hope it may be insistently presented at Washington until favorable action is taken.—*Boston Medical and Surgical Journal*, March 8, 1894.

BOOK NOTICES.

AN INTERNATIONAL SYSTEM OF ELECTRO-THERAPEUTICS: for Students, General Practitioners and Specialists. By Horatio R. Bigelow, M.D.; and thirty-eight Associate Editors. Thoroughly illustrated. In one large Royal octavo volume, 1160 pages. Extra cloth, \$6.00 net; sheep \$7.00 net; half-Russia, \$7.50 net. Philadelphia: The F. A. Davis Co., publishers, 1914 and 1916 Cherry Street.

This splendid work is the first and so far the only one of its kind, and has come none too soon when we consider that almost ten thousand physicians within the borders of the United States alone make use of electricity as a therapeutic agent daily. Many others find occasional use for it. The surgeon, the ophthalmologist, the dentist and the gynæcologist,—in fact, the specialist, in whatever field, finds it a valuable aid to treatment. It is the mainstay of the neurologist, both in diagnosis and treatment, and the rapid increase of exact knowledge in this branch of medical science is largely due to the service it has rendered. The more familiar we become with the manifestations of electric energy, the more do we recognize its adaptations to the requirements of diseased conditions.

It is this lack of familiarity on the part of the members of the Medical profession with the laws of electro-physics and physiology, more than any other cause, that has retarded the progress of electro-therapeutics. The time has come when the study of electro-therapeutics can no longer be delayed. This very complete work will, it is hoped, supply the much needed information in a very accessible form, the thirty-eight associate editors being men of international reputation in their several departments. Among the Canadian contributors are Dr. Wesley Mills and Dr. Laphorn Smith of Montreal; among the French are Dr. Larat and Tripiér of Paris; and among the English, Dr. Inglis Parsons of London, and Henry McClure, England. The United States of course furnish the bulk of the articles from the pens of Franklin H. Martin of Chicago, Augustin H. Goelet of New York, A. D. Rockwell of New York, Massey of Philadelphia, Mary Putnam Jacobi of New York, and

many other well known writers. The book is well printed and illustrated, and we congratulate both the Editor and Publisher in the successful issue of what must have been a most arduous undertaking.

AN AMERICAN TEXT-BOOK OF THE DISEASES OF CHILDREN. Including special chapters on essential Surgical subjects; Diseases of the Eye, Ear, Nose and Throat; Diseases of the Skin; and on the Diet, Hygiene and General Management of Children. By American teachers. Edited by Louis Starr, M.D., Physician to the Children's Hospital, and Consulting Pediatricist to the Maternity Hospital, Philadelphia; late Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania; Member of the Association of American Physicians and of the American Pediatric Society; Fellow of the College of Physicians of Philadelphia, etc. Assisted by Thompson S. Westcott, M.D., Attending Physician to the Dispensary for Diseases of Children, Hospital of the University of Pennsylvania; Physician to Out-Patient Department, Episcopal Hospital; Fellow of the College of Physicians of Philadelphia. Forming a handsome Royal 8vo volume of nearly 1200 pages. Profusely illustrated with wood-cuts and 28 half-tone and colored plates. Price: cloth, \$8.00. Philadelphia: W. B. Saunders, 925 Walnut Street. 1894.

The editor of this work, Dr. Louis Starr of New York, has long been a well recognized authority in diseases of children. In the present volume he has associated with himself some sixty of the best writers in Canada and the United States on Pediatrics. The result is a classical work embracing everything connected with these diseases, including their etiology, symptomatology, diagnosis and treatment. There are also chapters on feeding, hygiene, therapeutics and the prevention of disease. In order to make it still more complete, there are additional chapters on diseases of the eye, the ear, the skin, the nose and throat, the anus and rectum, circumcision, tracheotomy, intubation, vesical calculus, venereal disease and allied subjects. The work does infinite credit alike to the authors and to the publisher, who has spared no expense to make his part of it second to none.

PAMPHLETS.

Our readers may generally obtain a copy of these valuable re-prints free by applying to the authors.

LEPROSY. By Isadore Dyer, Ph.B., M.D., Dermatologist to Charity Hospital, New Orleans, La. Reprinted from the May, 1894, number of the Texas Medical Journal.

REPORT ON THE LEPROSY QUESTION IN LOUISIANA. By Isadore Dyer, Ph.B., M.D., Dermatologist to Charity Hospital, New Orleans, La. Reprinted from the Proceedings of the Orleans Parish Medical Society, June meeting.

RECTAL STRICTURE OF PUERPERAL ORIGIN, RELIEVED BY LAPAROTOMY. By N. Stone Scott, M.D., Cleveland, Ohio. Consulting Surgeon to the City Hospital; Visiting Physician to Charity Hospital; Professor of Genito-Urinary Diseases, University of Wooster. From the Medical Record, 26th August, 1893.

CALCIFIED TUMORS OF THE OVARY, by J. Whitridge Williams, M.D., Associate in Obstetrics, Johns Hopkins University. (With two illustrations.) Reprinted from The American Journal of Obstetrics, vol. xxviii., No. 1, 1893. New York: William Wood & Company, publishers, 1893.

SIX CASES OF APPENDICITIS. By W. T. Dodge, M.D., of Big Rapids, Michigan, Physician and Surgeon to Mercy Hospital. From The Medical News, May 12, 1894.

THE SURGERY OF THE HAND. By Robert Abbe, M.D., Surgeon to St. Luke's Hospital. Reprinted from the New York Medical Journal for January 13, 1894.

SARCOMA OF THE KIDNEY; ITS OPERATIVE TREATMENT. By Robert Abbe, M.D., of New York, Surgeon to St. Luke's Hospital.

THE PARALYZING ACTION OF STRYCHNINE. By Thomas W. Poole, M.D., M.C.P.S. Ont. Reprint from American Medico-Surgical Bulletin, February 15, 1894.

THE INDICATIONS FOR OPERATIVE INTERFERENCE IN EXTRA-UTERINE PREGNANCY. By Marcus Rosenwasser, M.D., Cleveland, O. Reprinted from the American Gynaecological Journal, Toledo, Ohio, July 1893.

AFFECTIONS OF THE EYE APPARENTLY DEPENDENT UPON UTERINE DERANGEMENT. By Richard H. Derby, M.D. (with three illustrations.) Reprinted from N.Y. Eye and Ear Infirmary Reports, Jan., 1894.

OPHTHALMIA NEONATORUM; CONTRACTION OF EYELIDS; GLAUCOMA; GRATAGE FOR GRANULAR LIDS. By L. Webster Fox, M.D., Professor of Ophthalmology in Medico-Chirurgical College of Philadelphia. Reprinted from the Medical Bulletin.

The Canada Medical Record.

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MONTREAL, AUGUST, 1894.

No. 11.

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Original Communications.

DISEASE OF THE EAR AS A COMPLICATION IN EPIDEMIC INFLUENZA OR GRIPPE.

By LAURENCE TURNBULL, M.D., PH. G., Philadelphia, Pa., Aural Surgeon to the Jefferson Medical College Hospital, etc.

During the epidemic of influenza or gripe in 1889-90, and 1891, we treated a large number of cases of ear disease both in the hospital and in private practice, and reported the same in the *Virginia Medical Journal*.

In most of the cases there was earache followed by acute otitis media, with a hemorrhagic inflammation of the membrana tympani, passing into perforations of the membrana tympani, the result of a micro-organism migrated from the nasopharynx. In some of the cases there were double perforations with more or less reflex irritation of the brain, and some involvement of the mastoid, followed by tissue abscess situated just beneath the cortical layer. There was pain, chill, and more or less fever, followed by perforation of the membrana tympani; at first a mucous

and, after a time, a discharge of pus. In almost all the cases there was a feeble circulation, irregular pulse and weak heart.

Instead of yielding promptly to the ordinary treatment by sterilized cleansing with a solution of bichlorate of soda and glycerine, cocaine solution at night to relieve pain, it had to be followed by carbolic acid with boric acid and aqua pura and careful inflating of the middle ear. Most of the recent cases were protracted for three, four, and even six weeks, and some longer. Then the apophysis of the mastoid became painful, and still more so on pressure. The insufflation of air diminishes the pain for a length of time but leaves the apophysis sensitive to touch, then we resort to the following prescription: Baths for the ear, of alcohol at 90 per cent. containing 20 grammes of pulverised boric acid, or a super-saturated solution which Lowenberg introduced into use for the past twelve years with success in this class of cases.

In the adults there was a large loss of the membrana tympani of a pyriform shape. The nose, throat and Eustachian tubes were inflamed and irritated, requiring spraying with a solution of aqua hydrogentii deoxide

3 per cent. solution with half water, until all secretions were removed, while the pain was relieved by cocaine at night, and then toning the part with liquid albolene and menthol, equal parts, of this using 2 to 5 of the albolene. This treatment had a most happy effect upon the second stage of the rhinitis. Tonics had also to be freely administered. Simple elixir of U. S. P. with phosphate of iron and strychnia, omitting the quinia and substituting salacin. Salacin acts as a mild tonic, reduces temperature, excites perspiration and relieves the catarrh and hyperæmia of the nasopharyngeal mucous membrane. The quinia is apt to increase the tinnitus aurium, which was one of the annoying symptoms.

Ever since 1891, there have been more or less sporadic cases as sequelæ of this distressing malady. In a case which we visited very recently in consultation, the daughter of a physician, a girl three years old, following an attack of grippe both ears discharged pus and both membranes were perforated. She was pale and feeble, and had been in her room for three weeks. The posterior nares were so much affected that a young physician thought from the symptoms she had adenoids and proposed their removal. We found no indications of such growth, but irritation of the mucous membrane extending from the pharynx into the Eustachian tubes. This unfortunately had not been attended to, and the tubes had not been kept free. This can so easily be done and should never be neglected, for by simply passing a short rubber tube of four or five inches, armed with a nozzle, into the nose, and, while the child cries, blow with the mouth piece, this will open the tube, which should be kept open every day after cleansing the nostrils and ears.

The child had no appetite for food and was weak. We therefore ordered essence of beef and eggs soft boiled, as this latter

is the only perfect food we have. The essence of beef acts as an admirable stimulant, using a quarter of a teaspoonful of "Armour's Extract" to a cup of warm water, adding a little salt to this makes a nice drink and few children will refuse it. We also ordered the wash before referred to and the tonic. It is wonderful what large doses of strychnia can be given in these feeble conditions following grippe, so as to tone the heart and improve the appetite and digestion. This child was reported well after two weeks treatment.

CONCLUSIONS.

First. There is a peculiar inflammation of the ear termed influenzal otitis.

Second. It almost always commences with hemorrhagic, dark blue or black bullae seen in the lower posterior segment of the membrana tympani.

Third. After a time a perforation of the membrana tympani takes place with a discharge of bloody muco-serous fluid.

Fourth. The pain, which is severe before the perforation, is not entirely relieved by it, and continues assuming more of a neuralgic character. There are subjective noises (tinnitus aurium) such as pounding, hammering and roaring, and if not properly treated by inflation or by Politzer's douche or the catheter, remain after all the inflammation has ceased.

Fifth. Fatal results may follow from meningitis, abscess of the brain, and more frequently sinus phlebitis. Such cases we are called upon to diagnose, being sent to our clinic as abscess of the brain.—*Philadelphia Medical and Surgical Reporter*.

MORPHINISM IN MEDICAL MEN.

Read in the Section on Practice of Medicine at the Forty-fifth Annual Meeting of the American Medical Association, held at San Francisco, June 5-8, 1894. By J. B. MATTISON, M.D., Medical Director Brooklyn Home for Habitues.

It is a fact—striking though sad—that

more cases of morphinism are met with among medical men than in all other professions combined. It is too true that a very large proportion of cases in general are found in our own fraternity.

In a paper "Opium Addiction among Medical Men," presented in the *Medical Record*, eleven years ago—June 9, 1883, reference was made to the dismissal within a week of a half dozen doctors recovered from the disease, and attention called to the surprising frequency with which it occurs in this particular class. Another decade of professional work exclusively given to the betterment of such patients has brought no decrease in this number; indeed the reverse has quite steadily obtained, so that in a paper, "The Ethics of Opium Habitues," *Medical and Surgical Reporter*, Sept., 1888, in a *résumé* of 300 cases, we noted 118 doctors, and of 125 most recently under my care, 62 were medical men; and the latest reference to my record shows a still larger proportion, being more than 70 per cent.

Again and again I have been asked with surprise, "Why do doctors so often fall victims to morphia, when they more than all others should know the risk attending its use?" Various factors make up the answer to this query. Insurance statistics prove that medical men attain a shorter average lease of life than those of other professions, and the causes that tend to this lessened longevity play a part in the rise of morphinism. It is also true that the wear and tear of their calling provoke a large share of painful non-fatal disorders. Neuralgia, in one or other of its protean forms—especially migraine—which leads the list in the genesis of this toxic neurosis, occurs among physicians with a frequency that may well excite surprise. Add to this the anxious hours, the weary days and wakeful nights which the experience of every busy doctor so often involves, and which, though acting indirectly, still swell the sum of cau-

sative conditions in this chronic toxemia, and little wonder that we have a soil specially rich for a sorrowful harvest if, unhappily, the seed be sown.

It has been asserted that medical men become morphinists through their calling involving frequent handling of morphia, but that statement in my opinion is not true. Erlenmyer shares in this disbelief. Druggists, whose vocation largely exposes them to the same risk—more so in the city than the doctor—do not often become morphinists.

A cause peculiar to the medical man in some cases is that careless curiosity which prompts him—generally a junior—to note the effect of morphin upon himself, and in so doing incur the risk of addiction. Obersteiner refers to such cases. A young physician asserted that while on hospital duty a patient was dismissed who had suffered from carcinoma of the stomach and been treated with morphia injections. Next day he returned, begging for more, as otherwise he must die. This was in 1869, when chronic morphinism and its results were less known than now. As the doctor was inclined to think the patient was romancing, he tried the experiment upon himself to ascertain the effect, became a morphinist and never recovered. Another case was that of a young physician, who, being assistant in a physiological laboratory, thought himself an interesting subject for experiment. More than one doctor whose disease had a like origin has been under my care.

Another cause obtains with physicians to the same extent as in non-medical men, that is the all-too-frequent use of morphia which the modern practice of medicine involves. Of this there is no question. Indeed, it holds more largely with the doctor than with the layman, for the former fully aware of the opiate's power to ease pain, pressed by his duties to get relief with the least possible output of time, and declining to make himself an example of the precepts

tendered his patient, as to the value of patience under suffering, that will permit the using of non-opiate remedies, or, if the morphia be demanded, which, at least, will secure its giving at infrequent intervals, or alternating with other anodynes, and so lessen the risk of addiction—lacks a certain inhibitory, so to speak, protection which serves as a shield to the non-professional patient.

Still another genetic factor, and in my opinion the one which outranks all others relative to the frequency of this disease in medical men, is their ignorance or unbelief as to the subtle, seductive, snareful power of morphia. It is to me quite beyond belief that any doctor *fully* realizing how swiftly and how surely the trebly pernicious power of this drug takes one captive will deliberately give himself up to a servitude galling alike to body and mind, and which in most cases ends only with life. Such a suicidal course is opposed to reason, to common sense and to fact.

In expressing this disbelief you will quite likely infer my skepticism as to the common opinion regarding the ethical status of our *confrères* whose ill-starred fortune has brought them such a wretched result. I have long held, and still hold, with steadily growing belief based on nearly twenty-five years study of this disease, and an acquaintance intimate more or less with the history of many hundred cases, that medical men do not become morphinists from an innate propensity to evil, from a merely vicious desire to indulge in the pleasures of the poppy—pleasures which, be it never forgotten, soon and surely give place to its pains—but rather that they are impelled thereto by force of physical conditions that, with the largely prevailing failure to realize the risk incident to incautious morphia using are practically beyond control. This phase of the subject need not detain us, for it has been noted with detail in two papers, "The Ethics of Opium Habitues," *Brooklyn Me-*

dical Journal, August, 1888, and *Medical and Surgical Reporter*, September, 1888.

In reviewing the various causes of morphinism in medical men, the most hopeful feature is the fact that they are largely preventable. In this lies the strongest incentive to presenting this paper, the largest promise that it may do good.

Regarding the cause first cited—the wear and tear of an over-active professional life—we must be specially sanguine who would expect to improve conditions along this line to an extent likely to largely lessen such untoward result; though it cannot be denied that the cares of a medical calling are less exacting than a decade or two ago, and so figure less as a genetic factor in this disease; yet I am bound to confess the outlook much more encouraging should careful and concerted effort be made to make less active the other causes to which we have referred.

Regarding the misdirected zeal of the hapless seeker after self-evidence of the effects of morphia, we can only again warn him—and earnestly—that the experiment is fraught with danger, and the rash act may prove his ruin, for the spark thus applied may set aflame that which will only be extinguished with life. He is a fool who does it, and the truly wise man will curb his spirit of inquisitive research along this line, if only on the score of personal well-being; besides no such self-sacrifice is called for, inasmuch as the peculiar effects of morphia, both as to blessing and bane, are now quite patent to all.

No one who has given the subject special thought will be likely to question an assertion that the use of morphin in the medical practice of to-day is in excess of what an actual need demands. And in direct proportion, more or less, to this excess stands the increase of morphinism. As a factor, applying to cases in general, it outranks all others, though as regards medical men it holds in my opinion second place. Custom

and convenience share in its causation. Custom, because experience has brought a belief in the anodyne-soporific power of morphia, which, while well founded, has not been attended by an equally well grounded belief in its possible power for ill. Convenience, because its promptly pronounced effect favors it as first choice when speedy relief is desired, and especially where, as too often happens with the younger men in the profession, the wish to score such a brilliant result as may prove a stepping stone to rapid professional advancement outweighs a due regard for untoward remote effect, from which appreciation a frequent giving of morphia or any opiate should never, it is well to say, be exempt. This is a truism the force of which should never be forgotten.

Leading all others as a genetic factor in morphinism in medical men, is their failure to realize the insidious power of morphia to speedily get a grip, disburbing and destructive alike to functional well-being of brain and brawn, and in almost every instance one too great to be broken by any self-effort they can command. At this writing I am consulted by a young physician whose case emphasizes this point. Sixteen months ago death left him wifeless and childless. In a specially unhappy moment of his grief he took a dose of morphia. It acted kindly, brought transient relief from his mental pain. A week went by before the second dose was taken, and then—the old story: Quite mistaken as to the poppy power and his own strength to resist—again and again till his capture was quite complete. Commenting on his case he assured me he knew the risk attending morphia taking, and never should have incurred it had he fully realized how direful the result of that risk to him would be.

It is quite beyond credence that a doctor gifted with sound sense would wittingly put his neck in such a noose. Granting this, the only reason for taking such a peri-

lous hazard is, as before asserted, an inadequate appreciation of the morphia's power to enthrall.

Touching this point, enlarged experience confirms an assertion made ten years ago, that "the subtly ensnaring power of morphia is simply incredible to one who has not had personal observation or experience." One of the finest specimens of physical manhood we ever knew, a physician who survived the horrors of Salisbury prison when the death rate averaged 80 per cent., fell a victim after only one month's hypodermic using. Since then, case after case has been under my care in which the initial stage was still shorter. The most notable was an athlete of superb physique, who withstood the rigor of an arctic winter as surgeon to a polar expedition, and then went down before a three weeks' daily quarter grain dose of morphia to ease the pain of an injured ankle!

So much for the genesis of this disorder. What the remedy? It is easy to moralize on the weak will—as many, mistakenly, are wont to put it—of our hapless brother living under this blight, but talk about "weak will" as a reason why strong men succumb to morphia—and I make bold to say that the man does not live who under certain conditions can bear up against it—is twaddle. Far better is it to face the fact that morphinism finds most often its favorite victims in the noblest profession known, and then recognizing the causes that make this fact, bestir ourselves to such precept and practice as will tend to remove this blot on the scutcheon.

Can this be done? Very largely, yes. In this hopeful belief lies the one redeeming feature of the prevalence of this toxic neurosis in our own guild. Morphinism is on the wane in my opinion, and I am optimistic enough to think the day not distant when it will be largely a thing of the past. But to reach this happy result it becomes the bounden duty of every phy-

sician to inculcate by teaching and by example the paramount importance of the causes we have cited that tend to the rise of this disease.

Two points call for special comment. These are the over use of morphia and the under thought of its danger. Regarding the latter, let me warn with all the weight I can command every doctor who may be dallying with this drug, or who may think its self-taking called for—and this warning holds with special force if the subdermic method be practised—let me warn him that he is inviting disaster by jeopardizing interests vital to his well-being, and let me urge him to pause and to ponder well whether, despite this warning, he dare take such risk. Let him not be blinded by an under estimate of the poppy's power to ensnare. Let him not be deluded by an over-confidence in his own strength to resist; for along this line history has repeated itself with sorrowful frequency, and—as my experience will well attest—on these too treacherous rocks hundreds of promising lives have gone awreck.

I have no wish to pose as an alarmist, but I tell you, gentlemen, that many a doctor who gives himself a daily hypodermic dose of morphia for a fortnight will come perilously close to the danger line—beyond which bondage begins.

Let him not chance it; rather let him, if the opiate demand be imperative, consign its giving to other hands; let it be by mouth; and oftener let it be codeine, which as an anodyne and soporific has not yet had the measure of merit it deserves, and which, as tending to tolerance, is vastly less risky than morphin. In a paper before the American Medical Association two years ago, "The Prevention of Morphinism" (reprint at command, and by the reading of which I would have every one of you the gainer), attention was called to the value of codeine. Enlarged experience has confirmed the opinion then expressed,

and while I am glad to note the demand for it is steadily increasing, I earnestly urge its still larger use as one of the most promising factors to favor a decline of the morphin disease.

Regarding the over use of morphia, never was there so little excuse for it as now, for never were the means at command to ease pain and bring sleep equal to those of to-day. Modern medicine is richly equipped in this regard, and if these resources be fully availed of, it will go far in a decrease of this ill.

As tending to this, teachers in medical schools should realize that they have opportunity to wield great influence for good, and by word and deed they should improve it. To do so would strike right at the root of this evil, for I truly think the junior members of the profession are the greatest sinners in this regard; and if by timely counsel from their preceptors and college instructors the thousands who year after year begin a medical career can be brought to believe the danger incident to an incautious or needless giving of morphia, and then shape their practice in keeping with that belief, the good work will be largely done.

Slowly yet surely the therapeutic trend is in this direction. More and more the older medical men, impelled by larger wisdom or an experience often unhappy, are quitting the syringe, more and more rarely are they using morphia. The influence of this example must make itself felt on the younger men, and when to this is added the teaching we have commended, the dawn of a better day will not be distant. May that good time coming soon come.—
Journal American Medical Association.

—In trephining for *Inveterate Headache*, Prof. Keen says, if nothing abnormal be found, the dura should be stitched together and the wound closed, but the button of bone should not be replaced, and occasionally good results will follow.

Society Proceedings.

AMERICAN ELECTROTHERAPEUTIC ASSOCIATION.

The following is the preliminary programme of the American Electro-Therapeutic Association, which will hold its fourth annual meeting at the New York Academy of Medicine, New York, Sept. 25th, 26th and 27th.

President's address, Dr. W. J. Herdman, Ann Arbor, Mich., Professor of Diseases of the Mind and Nervous System and Electro-Therapeutist in the University of Michigan.

REPORT OF COMMITTEES ON SCIENTIFIC QUESTIONS.

On Standard Coils, Dr. W. J. Morton, New York.

On Standard Meters, Dr. Margaret A. Cleaves, New York.

On Standard Electro-Static or Influence Machines, Dr. W. J. Morton, New York.

On Constant Current Generators and Controllers, Dr. W. J. Herdman, Ann Arbor, Mich.

On Standard Electrodes, Dr. A. Laphorn Smith, Montreal.

Stand and Electrode for Static Electricity, Exhibit of same, Dr. Lucy Hall-Brown, Brooklyn, N.Y.

On Electric Light as a Therapeutic and Diagnostic Agent, Dr. Margaret A. Cleaves, New York.

THE CONSTANT CURRENT.

PHYSICS.—Current Distribution, Mr. W. J. Jenks, M.I.E.E., New York.

Physiological Effects, Prof. H. E. Dolbear, President Tuft's College, Boston, Mass.

THERAPEUTIC USES.—General, Dr. A. D. Rockwell, New York.

Gynaecology,——

The Galvanic Current in Catarrhal Affections of the Uterus, Dr. G. Betton Massey, Philadelphia.

Suites e'loignees du traitement electrique conservateur Gynaecologie. Grossesses consecutives, Dr. Georges Apostoli, Paris.

Metallic Electrolysis. M. le Docteur Georges Gautier, Paris. Dr. W. J. Morton, New York. Dr. Margaret A. Cleaves, New York. Dr. A. H. Goelet, New York.

Treatment of Urethral Stricture, Report to date, Dr. Robt. Newman, New York.

Diseases of the Eye, Electro-Therapeutics of, Dr. L. A. W. Alleman, Brooklyn, N. Y.

Notes on Goitre and Improvements in Apparatus for treatment of same, Dr. Chas. H. Dickson, Toronto.

Diseases of the Throat, Dr. D. S. Campbell, Detroit, Mich.

The Action of Electricity on the Sympathetic, Dr. A. D. Rockwell, New York.

Diseases of the Nervous System.

The treatment of Neuritis by the Galvanic and Faradic Currents, Dr. Landon Carter Gray, New York.

Electric Sanitation, Prof. John W. Langley, Ph. D., Case School of Science, Cleveland, Ohio.

Physics of the Electric Light in relation to Organized Matter, Prof. John O. Reed, Ph. M., Mich.

Hydro-Electric Methods, Asst. Prof. of Physics, University of Physics, and Appliances, Dr. Margaret A. Cleaves, New York.

Special Hydro-Electric Applications, Dr. Margaret A. Cleaves, New York.

The Hydro-Electric Therapeutics of the Constant Current, Dr. W. S. Hedley, Brighton, England.

INDUCTION CURRENTS.

INTERRUPTED CURRENTS.—Physics, Physiological effects, Dr. W. J. Engelmann, St. Louis, Mo.

THERAPEUTIC USES.—General Faradization, Dr. A. D. Rockwell, New York.

Gynaecological, Dr. A. H. Goelet, New York. Dr. H. E. Hayd, New York. Dr. A. Laphorn Smith, Montreal.

SINUSOIDAL CURRENT.

Physics, Mr. A. E. Kennelly, F.R.A.S., Philadelphia.

Physiological Effects, Dr. W. J. Herdman, Ann Arbor, Mich. Dr. J. H. Kellogg, Battle Creek, Mich.

Therapeutic Uses, Dr. Margaret A. Cleaves, New York. Dr. Wm. Jas. Morton, New York. Dr. J. H. Kellogg, Battle Creek, Mich. Dr. Holford Walker, Toronto. Dr. A. H. Goelet, New York.

Le Courants Alternatifs; leur transformation; leur mesure et leurs application therapeutiques, M. le Docteurs Gautier et Larat, Paris.

On the Sinusoidal Current Method of Regulation the E.M.F. and Resultant Current, Dr. Lucy Hall-Brown, Brooklyn, N.Y.

STATIC AND STATIC INDUCED.

Physics, Prof. Edwin Houston, Ph. D., Philadelphia.

Physiological effects,——

THERAPEUTIQUE USES.—General Therapeutic Uses, Dr. Wm. Jas. Morton, New York.

The Treatment of Chorea, Dr. D. R. Brower, Chicago.

Static induced, Dr. Margaret A. Cleaves, New York.

High Frequency Currents derived from static Machines as per Method d'Arsonval, Dr. J. H. Kellogg, Battle Creek, Mich.

IN MEMORIAM.

Dr. Wm. F. Hutchinson, Providence, R.I. Dr. Robt. Newman, New York. Dr. John Chambers, Indianapolis, Ind. Dr. Plymon S. Hayes, Chicago. Dr. W. J. Herdman, Ann Arbor, Mich.

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, March 23rd, 1894.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Dr. David B. Alexander was elected an ordinary member.

Talipes Equino-Varus.—Dr. BELL brought before the Society a man from whom he had removed the greater part of the tarsus for talipes equino-varus. The patient, a farmer, 47 years of age, had not suffered any great inconvenience up to seven years ago, being able to walk fairly well on the outer side of the dorsum of the foot. At that time a large bursa which had developed over the dorsum of the right foot became inflamed and suppurated. Since then sinuses had persisted, and he had not been able to walk with any degree of comfort, and has been frequently under treatment. In January last he came to the Montreal General Hospital for the purpose of having the bursa treated, but as in all probability the disease had extended down to the tarsal articulations, the more radical operation of tarsectomy was advised. After some hesitation he submitted to this operation for the correction of the deformity. At the operation, the astragalus was first removed, then the scaphoid, then a small portion of the head of the os calcis, then the cuboid, and finally to make the correction complete, the tip of the external malleolus and portion of three cuneiform bones were removed. Unfortunately a case of erysipelas had been operated upon on the same table half an hour before, and though every precaution had been taken to disinfect the surroundings, the patient contracted that disease. This prevented splints from being applied in the usual way, so that there is a little more turning in of the foot than usual, but the result is very satisfactory, almost perfect.

Talipes Varus.—Dr. BELL showed a young man, twenty-one years of age, upon whom he had operated for this condition. The patient had been for several years incapacitated for hard work, and lately had been unable to work at all. The left foot was very much worse than the right. Five weeks ago an osteotomy was performed above the ankle joint, turning in the foot and correcting the deformity. The object was to bring the centre of gravity down through the centre of the foot instead of through the inner border.

The difference between the two feet when seen from behind was very well marked.

This operation was introduced by Trendelenberg a few years ago, and has practically superseded all others for serious cases of flat foot, which for one reason or another cannot be treated by appliances. Trendelenberg had

observed that in certain cases of Pott's fracture when care had not been taken to correct the deformity at the time of the accident, a condition resembling flat-foot had resulted. These cases he treated by osteotomy, and subsequently he extended the operation to cases of flat-foot.

Multiple Fracture of the Pelvis and Fracture of the Femur.—Drs. KIRKPATRICK and WILLIAMS presented a mounted specimen which consisted of the pelvis, the last lumbar vertebra and the upper half of the left femur. In the sacrum a fracture extended from the right ala at the auricular surface, which shows numerous splintered fragments, through the five right foramina to the transverse process of the first coccygeal vertebra. On the left side the bone showed many small splinters and incomplete fissures, especially on the anterior surface, extending in the same manner as far as the fourth lateral foramen. The left inferior articular process of the last lumbar vertebra is also fractured. On both sides the superior rami of the pubis showed transverse comminuted fractures. At the junction of the rami of the pubis and ischium on the right side and through the ramus of the ischium on the left are transverse fractures. The left inferior ramus of the pubis also shows an incomplete transverse fissure on its anterior surface. The left femur sustained a transverse comminuted fracture at about the centre of the shaft.

The man from whom the specimen was obtained was employed in excavating earth, when a large mass (400 lbs.) of frozen earth and shale fell on his side and thigh, crushing him to the ground. Four men lifted the man and carried him to a bench. He was conscious, and after recovering from the primary shock was able to sit up; he said that his left leg was broken. Death occurred two hours later from shock or nervous injury, not from hæmorrhage.

Stated Meeting, April 6th, 1894.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Compound Depressed Fracture of the Occipital Bone.—Dr. BELL exhibited a boy, aged six, who in August last had fallen into an excavation and had sustained a compound depressed fracture of the left occipital bone. He was seen a few minutes after the accident by Dr. Grant Stewart, who observing that he was rapidly falling into a condition of coma sent for Dr. Bell, who had him taken to the Montreal General Hospital, where he operated. After shaving the head he proceeded to elevate the depressed portions of the bone, the edges being chiselled away, so as to make an elliptical opening, half an inch in the short and one inch in the long diameter. The dura mater was torn and a large clot (about four ounces) was found lying upon the brain, but no

active bleeding was discovered. Up to this time no anæsthetic had been given, but it was found necessary to administer chloroform to finish the operation. The boy made an uninterrupted recovery, and was discharged about six weeks after. Since his return home his mother has noticed deafness in the left ear, some uncertainty about his gait, and incontinence of urine during sleep, which condition did not exist before the examination. No examination of the ears had been made.

Penetrating Bullet Wound of the Brain in the Left Frontal Region.—Dr. BELL also exhibited a little girl, aged 5 years, who, while playing, had become possessed of a loaded twenty-two calibre English revolver, which she had accidentally discharged while resisting the attempts of an elder sister to take it from her. Dr. Hutchison saw her shortly afterwards and sent her soon after to the Montreal General Hospital, where she was given chloroform and the wound exposed. The bullet had penetrated the left frontal region, three-quarters of an inch to the left of the middle line and the same distance above the supra orbital ridge, going completely through the skull, causing a circular depressed fracture of about a quarter of an inch in diameter. The outer fragments of the bone were removed by forceps and the wound enlarged with a chisel. Forceps were then passed in carefully along the track of the bullet, and several spicules of bone removed from a depth of two inches in the brain substance. Blood clot, pieces of broken down brain matter and fresh blood were also removed, when on passing the forceps in, the bullet could be distinctly felt at a distance of two and half inches from the surface; several attempts were made to grasp it, but failed, and considering the region in which it lay, near the anterior cornua of the ventricle, Dr. Bell concluded that the risks involved in persevering in attempts to extract it were too great; therefore, after carefully cleansing the wound, a glass drain was inserted directly into the brain substance and kept in for seventeen days, being shortened on two different occasions. For the first four days the temperature oscillated between 90° and 100°, but afterwards remained normal. The child made an uneventful recovery and was discharged on Feb. 26. From the time she left the hospital she had been absolutely well and is now going to school. Dr. Bell recalled a similar case which he had reported to the Society in the session of 1879-1880, of a man who deliberately shot himself in the temple, and from which the bullet had never been removed. This patient died of phthisis two years later, and at the autopsy the bullet was found lying within half an inch of the falx cerebri.

Dr. PROUDFOOT, having made a cursory examination of the boy, found that the watch

placed against the child's ear could be heard distinctly, whereas if it was removed the slightest distance, the sounds could not be heard at all. Whether this was due to conduction through the bones he could not say, but apparently the nervous portion of the ear was all right. He suggested that the difficulty in hearing might be accounted for by a catarrhal condition of the middle ear brought on by wet dressings, and which would disappear on treatment.

Dr. HUTCHISON had seen the second case, the girl, half an hour after the accident had occurred. The child did not show any symptoms of brain injury. He put her under chloroform, examined the wound, and having found that the bullet had entered the brain, concluded to send her to the hospital. He saw her again after her return from the hospital, and the mother now states that she is even more precocious than before the accident.

Pulmonal Cerebral Abscess.—Drs. ADAMI and FINLEY reported a case as follows:

T. W., æt. 16 years, by occupation a painter, became ill on February 23rd, suffering from a severe cold, which made him take to his bed. He left his bed the next day but was forced to return, the cold having increased in severity, there being a pronounced cough with expectoration and frontal headache. This was followed by pain in the chest, high fever and the expectoration of blood-stained sputum. When he was admitted into the General Hospital upon March 9th, these symptoms had disappeared, and nothing was to be detected in the chest save a few crepitant râles at the base. There was, however, great feebleness, with obstinate constipation. The right pupil was larger than the left, without there being any disease of the fundus. There was no evidence of renal disease. The patient became gradually comatose with coma vigil. The pulse continued unaltered at 84, the respirations were 28 per minute, only increasing at the last moment, the temperature was 100°. The patient died six days after admission.

At the autopsy performed fifteen hours after death, the trachea was found greatly congested with thin blood-stained mucus covering its surface. The bronchi were reddened and affected with bronchitis, the upper lobes of both lungs were œdematous, the lower lobes of both lungs were heavy to the feel and fairly firm, they were greatly congested but at the same time crepitant. At the root of the right lung was a suppurating bronchial gland.

In the heart the one point deserving notice was the condition of the coronary arteries; these, while not definitely atheromatous, were greatly dilated, their walls having undergone fibroid thickening. There were small patches of fatty change in the first part of the aorta, with more distinct atheroma in the lower and dorsal and abdominal aorta.

In the alimentary tract the only markedly abnormal condition was the presence of a suppurative tonsillitis. The liver was somewhat fatty, the pancreas firm and fibroid, with dilated and tortuous artery, the spleen small and fibroid with wrinkled capsule, the kidneys large and long with diminished antero-posterior diameter, distended arteries, finely granular surface, lessened cortex, and with a small cyst upon the surface of the right organ. Beyond these conditions, nothing noticeable was observed. Save for the suppurative tonsillitis and the state of the lungs, the condition of the organs was what is expected to be found associated with the arterio-sclerosis of advancing age.

Coming now to the brain it was noticed that upon removal of a skull cap of abnormal thickness, the left hemisphere seemed to bulge more than the right, and convolutions were more flattened. Upon removal of the organ the vessels at the base were found markedly atheromatous, even to the end of the fissure of Sylvius. Around the roots of the anterior cranial nerves there was a purulent meningitis extending in front to the olfactory bulbs, behind it reached as far back as the line joining the points of egress of the 5th nerves.

Upon opening the lateral ventricle of the left side, it was found to contain a large quantity of fairly clear or semi-transparent greenish muco-pus; in the region of the posterior cornu this extended for several centimetres outwards into the white matter of the brain, forming a channel with smooth walls; this did not extend into the grey matter. The choroid plexus was thickened and oedematous. In the substance of the left hemisphere, opposite to the junction of the temporal and parietal lobes, there was a large cavity in the white matter, containing pus of a like clear mucoid greenish character. Its walls were of reddish-blue colour and were necrotic. The right ventricle contained a large cast of whitish green pus extending over the whole of the mid-region of the ventricle. In the white substance opposite to the ascending frontal convolutions, and upon the level of the junction of the upper and middle frontal lobes was another abscess the size of a hazel nut; this extended quite superficially into the grey matter, less than 1 cm. of wall remaining. It contained similar greenish contents, and had walls undergoing necrosis. There was further a small abscess containing but a few drops of pus in the posterior portion of the right optic thalamus. The pus present in the left ventricle extended down into the third and fourth ventricles. On cutting into the cerebellum the left lobe was found normal; the right lateral lobe was the seat of another abscess with well-defined walls, filled with necrotic material, associated with the same pale greenish pus; this was 5 cm. in the greatest diameter and

about 3 cm. wide, being of oval shape. The pons and medulla were normal.

A few encapsuled diplococci were found in the greenish pus of the cerebral abscesses.

We have recorded this case mainly because of its bearing upon the relationship between lung disease and cerebral abscess. That such relationship frequently exists has long been recognized. Only last year one of us (F.) had a case under observation, presenting many points of similarity with the present, and while we were engaged upon studying the material obtained from this case, our mutual friend, Dr. Williamson, of Manchester, published a short article in the *Medical Chronicle*, bringing together the observations of several observers upon this very subject. Hence it is not inappropriate to call attention here to this case.

Williamson's epitome of the literature of the subject shows that more frequently cerebral abscess develops as an accompaniment of chronic lung trouble, rather than as a sequela of acute. More especially it is in cases of chronic bronchitis and bronchiectasis that the relationship is found. There are, however, several cases in which the abscess formation has followed upon acute pneumonia. In the case mentioned by us the exact conditions which had led to the abscess formation cannot be stated with absolute certainty, although it is safe to infer from the history given that the patient had suffered from croupous pneumonia, and, from the condition of the lung both macro- and microscopically, that this disease had affected the lower lobes on either side. The presence of lanceolate diplococci in the characteristic greenish pus may be urged with some force in favor of this contention. On admission into hospital the condition was one of advanced resolution of the disease, the only active disturbance found at the autopsy being the suppurating gland at the root of the right lung. The presence of this condition of the gland is in itself suggestive of a tendency on the part of the inflammation that had affected the lungs to travel beyond those organs.

It is difficult to offer a satisfactory explanation, or one that will embrace all cases, why there should exist this liability for cerebral abscesses to be associated with disease of the lungs more frequently than, for instance, renal abscesses are found to be thus associated. In our case, it is true, there was extensive atheroma of the cerebral vessels, and the diseased condition of the arteries may have been a predisposing cause; such atheroma, however, is not constantly present.

Remarks.—Dr. JAMES STEWART remarked that although there were plenty of opportunities for examining the case, a diagnosis during life had not been reached. The symptoms were not at all characterized, being simply those of an acute brain lesion causing pressure. He

thought Dr. Adami's explanation was the correct one. Articles have lately appeared in the British Journals pointing out the frequency with which acute central lesions and acute peritonitis were brought about by this organism. At the present time in the Victoria Hospital there is an instance of a suppurating arthritis following pneumonia, and in which the pneumococcus has been found in the joint.

Dr. GUNN had first seen the case referred to by Dr. Stewart in the outdoor department of the Victoria Hospital, and found an area of dullness over the middle of the right lung in front, rather small in proportion to the attendant temperature, which remained in the region of 104° for first 3 days. After entry to hospital a well marked crisis had occurred and temperature remained normal for three days, when he developed a violent chill and showed all the signs of some acute infection or relapse. The following day a swelling developed in the cellular tissue of the left upper arm behind, showing a characteristic erysipelatous appearance, which subsided gradually, and 4 days after all fever had gone, there was another chill and rise of temperature. This time the knee joint on the right side and the left shoulder became very painful, tender and swollen, and on examining the contents a characteristic pus, not decidedly green, but rather of a milky nature, was found. The microscope showed nothing but diplococci with the capsules well marked. Bouillon cultures, however, did not show characteristic diplococcus growth, but rather that of a streptococcus. The examination is not complete—no inoculation having been made.

Dr. GUNN asked if in Dr. Adami's case any other micro-organisms were found and if inoculation had been made.

Dr. MILLS wished to know whether the arteries of the brain in Dr. Adami's case had been examined, and whether steps were taken to exclude emboli or ordinary forms of brain softening in the diagnosis.

Dr. ADAMI stated that abscess of brain with general signs of inflammation in the surrounding tissues were not caused by simple emboli alone.

Gall Stone.—Dr. BELL exhibited a specimen which, though only an ordinary gall stone, had a clinical history of especial interest. On Wednesday last he had been called into the country to operate on a patient supposed to be suffering from appendicitis. She was an unmarried woman, fifty years of age, and although a dyspeptic for many years, which she attributed to the loss of her teeth, she never had a day's real illness in her life. On the previous Friday she began to suffer from pain about the right hypochondrium; her physician saw her on the following Monday and found her suffering from great

pain on the right side of the abdomen. Slight vomiting, normal temperature, and pulse about one hundred. The vomiting persisted all that day and night. Next day vomiting had ceased and morphia was given for the pain, but towards evening of the following day, her temperature rising to 99.5° , her physician grew anxious, and upon making an examination found a resisting mass to the right of the umbilicus and extending up to within an inch of the lower ribs on the right side. Dr. Bell found an area of dullness and resistance extending along the right linea semilunaris upwards to a finger's breadth below the lower border of the ribs and downwards to an inch and a half below the umbilicus. Along the outer border of the mass at the so-called McBurney's point, there was special tenderness, although tenderness existed more or less all over the area of dullness. While concurring in the diagnosis of the appendicitis, Dr. Bell felt that the symptoms might possibly be due to other causes, such as suppurating gall-bladder or some extravasating condition about the stomach, and hesitated to operate in the country. The patient came to Montreal and entered the Royal Victoria Hospital, when on further examination he had almost made up his mind that the case was one of appendicitis. Upon opening the abdomen, however, he found a very much distended gall-bladder, very red and friable walls. Upon making a puncture an ounce of clear fluid escaped, then turbid fluid and lymph, and finally, about an ounce of pus. The stone was found to be impacted in the orifice of the cystic duct, from whence it was dislodged with great difficulty.

This case, though one of ordinary gall-stone, simulating as it did so closely an appendicitis, is of more than passing interest to the surgeon who is now-a-days so often called upon to operate for appendicitis. The stone was an inch in length, three-quarters of an inch in breadth, and half an inch in thickness, being somewhat oval and slightly flattened, and has truncated extremities, one of which was directed into the cystic duct and the other into the cavity of the gall-bladder.

Stated Meeting April 20th, 1894.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Dr. Edward J. Kennedy was elected an ordinary member.

Angiosarcoma of the lung.—Dr. JAMES STEWART brought before the Society a young man suffering from a morbid growth of the lung.

Cases of primary sarcoma, affecting either the lung or the pleuræ, are far from common, and the case which we are here about to record possesses, for us at least, a peculiar interest, inasmuch as a positive diagnosis of the condition was made during life. The patient, J.

Van der Wee, a Belgian by birth, aged 35, had been for some years a glass blower. He first felt unwell in the beginning of February, 1894, experiencing constant pain in the left side of the chest. Shortly before admission into the hospital (upon the 7th of April) he suffered from frequent vomiting. Upon admission it was noticed that the upper portion of the left thorax presented very definite bulging, and from the third rib upwards upon the left side there was absolute dullness upon percussion, while auscultation over this area only gave a distant blowing breathing. Vocal fremitus was absent. The dullness and the auscultatory signs were the same both above the clavicle and above and around the upper portion of the scapula behind. While in the hospital pressure symptoms developed in the left arm, the left radial pulse was distinctly weaker than the right, and the difference was well shown in sphygmographic tracings obtained from the two radicals; the surface temperature of the left arm was higher than that of the right, and there was pain extending down the inner side of the left arm.

During the last week of life the patient suffered from excessive vomiting, and was unable to retain any nourishment. Three days before death, which occurred on May the 5th, the patient was noticed to have become suddenly peculiarly anæmic, within 24 hours he became delirious, and although a few hours before death his condition seemed to be improved, there was a return of the symptoms and he died with comparative suddenness.

The absence of vocal fremitus, complete dullness on percussion and the pressure symptoms, together with the absence of any marked expectoration, and again the absence of pulsation, led one of us (S.) to a diagnosis of sarcoma. On April the 15th, in order to confirm this diagnosis, an ordinary Pravaz syringe was carefully sterilized, the skin over the region of most considerable bulging, namely, over the second interspace on the left side in front, was washed and rendered aseptic, and in the presence of both of us, Dr. Deeks, the resident physician, passed the needle into the swelling and obtained without great difficulty several drops of fluid. This fluid was in the main composed of blood. In it could be seen small whitish or creamy masses of more solid material. The needle was immediately passed through the side of the cotton-wool plug of a tube of sterilised Glycerine Agar-Agar. A few drops of what remained in the syringe were immediately examined unstained under the microscope, but beyond plentiful red corpuscles nothing could be clearly distinguished; later, one of the small whitish masses removed from the surface of the Agar-Agar, and stained under the cover slip with a dilute solution of methylene blue, showed the presence of large numbers of cells

of a size rather larger than that of ordinary leucocytes, and with nuclei which, instead of being rounded, were of a blunt oval shape. Together with these cells there could occasionally be seen definite thin spindle-shaped cells with nuclei of a more elongated oval or spindle-shaped appearance, but more rarely there were to be recognized larger cells, three or four times the diameter of the cells which formed the main mass. These were filled with minute oily droplets, and had also a more pigmented appearance. It may be added here that the Agar tube placed in the incubator at 37° C. remained completely sterile, save that after several days there developed one small whitish growth which was found non-pathogenic, and which was evidently a contamination from the air.

These cells were from their appearance neither pus cells nor the products nor the accompaniments of any form of chronic inflammation; their appearance entirely tallied with that of a sarcomatous nature, and it was held that here there could be none other than some rapidly-growing oat-shaped cell or oval celled sarcoma present, and in fact the patient was brought before the Montreal Medico-Chirurgical Society upon April the 13th, and the condition was there demonstrated as being one of sarcoma of the lung, or pleura.

At the autopsy performed upon May the 6th, the body was found to be that of a well-developed adult, of medium size, with no signs of emaciation or oedema. There was no difference to be noticed between the two arms, either in circumference or in other respect. The head was not examined. Upon opening the thorax a large soft mass was discovered extending from the very upper extremity of the left side of the thorax down to the level of the sixth rib in the left mammary line. At the level of the second rib the mass extended from the junction of the second rib with its cartilage on the right side across the whole of the left chest. Below this level its edge slanted obliquely towards the left nipple and to the level of the sixth rib as above mentioned. The upper portion of this mass, down to the level of the third rib, was apparently firmly adherent to the costal pleura, so that in order to remove the growth in part this had to be dissected off from the ribs. Below the level of the third rib the wall of the capsule appeared to be thinner; it was of a dark bluish colour and resembled a cyst containing blood. The heart was displaced downwards, and to the left the right lung showed slight adhesion along the fourth rib, behind and forward, as far as the anterior axillary line. Upon removing several inches of the upper ribs upon the left side in order to dissect out the tumor in part it was found that the intercostal humeral nerve passed down from the pleura within the thoracic cavity, that is to say, to the inner side

of the ribs, and that it appeared to be enmeshed or implicated in the capsule of the growth, emerging laterally between the second and third ribs. The first and second ribs of the left side were slightly eroded as far as their cartilages, the third as far as the axillary line, the fourth as far as the angle.

Upon removing the greatly enlarged left lung, the mass upon the upper and anterior surface was found to be peculiarly soft, and so soon as the capsule formed by the costal pleura was cut in two, a large amount of soft semi fluid material of a dark purple color easily passed out through the openings made. As much as 700 cubic centimetres of this material was taken out at the autopsy, and a quantity almost equal in amount was still left within the sac removed at a later period. Save that some portions of this material were of a slightly denser consistency, the whole might have been taken for soft breaking down blood clot.

Upon cutting up the bronchi of the left lung, and passing a probe down the various smaller-sized bronchi of the upper portion of the lung, no communication could be detected between these and the tumour mass, and careful examination showed that this mass lay in the pleural cavity above and anterior to the upper lobe of the left lung. There had evidently been an old chronic pleurisy of some standing, causing adhesion between the upper lobe or the lower boundary of this lobe and the costal pleura, and it was in the sac formed thus between the two layers of the pleura over the upper lobe that a tumour had developed and had extended. The upper lobe itself was greatly compressed, the lower lobe showed compression to a lesser extent; the right lung was smaller than normal. It presented a certain amount of emphysema. At its apex were three or four old calcareous tubercular nodules well encapsuled. The pericardium contained an ounce of slightly blood stained fluid, the heart showed no signs of inflammation, the valves of the heart in general were normal, the abdominal organs presented nothing calling for special remark in this connection. No secondary growths could be recognized by the naked eye in any of the organs.

Upon examination of portions of the softened mass of the tumour, carefully selected from various areas, and hardened either by placing in boiling water for one minute or by Muller's fluid, it was found that the lower edge of the tumour mass was almost entirely, if not quite, pure clotted blood; portions rather denser in their consistency originally, but still equally blood-stained, presented a very interesting condition. They were found to be formed of lobules of sarcomatous tissue, whose cells showed up very well by contrast staining, either with methylene blue and eosin, or with hæmatoxylin and eosin. Running in various directions through these lobules of sarcomatous tissue

were greatly dilated vessels of a purely embryonic type, with walls so delicate that the flattened cells forming them could only here and there be recognized. Immediately around these vessels the sarcoma cells were more densely arranged; these cells were identical in appearance with those that had been removed by the hypodermic needle. They were slightly oval, their nuclei were also oval and stained well, and they were definitely larger than, in fact almost twice as large as, the leucocytes which could be seen here and there lying within the vessels. Away from the vessels the cells became more loosely arranged, and here and there stained badly, inasmuch as lobules were separated from each other by very extensive effusion of blood, and this extravasated blood appeared to be causing the destruction of these outer layer of cells, the extravasation extending in between them.

Careful study of sections taken from various points over the surface of the upper lobe of the left lung led to the conclusion that the tumour had not originated from the visceral pleura; in general the tumour mass could be easily removed from the surfaces of the lung, leaving this relatively smooth and glistening. On the other hand, sections through the costal pleura from the level of the second interspace upwards showed that here the pleura had undergone great fibroid thickening, and that it was infiltrated by masses of sarcoma cells. It would seem evident, therefore, that the tumour had originated, not primarily in connection with the lung, but in connection with the costal pleura.

This condition presents very many points of interest; it confirms the diagnosis that had been made *intra vitam*. The rapid growth of the tumour and the erosion of the upper ribs, indicate that in its development this tumour had pressed upwards, and had thus affected both brachial and nerve supply. The fact that the tumour was extra pulmonary will explain the remarkable absence of direct pulmonary symptoms observable during life; while the character of the growth is fitted to throw light upon the symptoms which immediately preceded death. As we have mentioned, the tumour was of a peculiarly vascular nature; even those parts which were found to stain so well, and which showed most clearly the sarcomatous nature, were, when removed from the body of a consistence scarcely firmer than that of recent blood clot, tearing apart with great ease. In addition to this natural softness of consistency on the part of the tumour, there had evidently been a very great amount of hæmorrhage into the growth, so that the tumour in its lower part was nothing but pure blood clot, and in the rest of the area was a mixture of blood and sarcoma tissue.

The question arises, had these hæmorrhages been continually occurring during several

weeks, or had there been one great and extensive hæmorrhage, which, coupled with the breaking down of the neoplasm, may be looked upon as having been the one immediate cause of death. Undoubtedly there had been a certain amount of hæmorrhage and breaking down of the tumour some weeks before death. This alone is capable of explaining the presence of the occasional large leucocytes, or, if the term may be employed, "Staubzellen," which were found at the time of the exploratory puncture in April, large cells containing the debris of the fatty degeneration of the sarcoma tissue, together with a certain amount of pigment derived from extravasated blood. But we are, notwithstanding this evidence, inclined to believe that shortly before death a most extensive hæmorrhage had occurred, for this alone will account for the sudden onset of extreme anæmia, which was noticed three days before death, and the almost equally sudden low delirium which ensued. That this hæmorrhage was in itself sufficient to account for death we will not say, but it had led to extensive breaking down of the sarcoma tissue, and this hæmorrhage, breaking down of the tissue and absorption of the products formed together, in our opinion, a sufficient cause.

Melanotic Sarcoma of the Foot.—Dr. ARMSTRONG exhibited the specimen which had been removed from the sole of the foot of a woman aged 67. Five years ago she had stepped upon a nail which had pierced the sole. After it was removed the wound healed; one year later it re-opened and discharged pus for some time and again healed. For the past four years it has periodically opened, discharged and again healed up, sometimes remaining closed for a month or two. During this time she had been doing the work of a servant and never had any medical attendance until a month ago when she called upon him. Behind the middle and fourth toe there was a mass about one inch square which resembled an exuberant granulation. Under ether this mass was shelled out with a blunt spoon, it being connected with neither tendon nor periosteum. On examination a lymphatic gland, about the size of an egg, was found below Poupert's ligament, the patient not being aware of its presence. The hæmorrhage after removal was considerable, one or two little vessels spouting.

Dr. Armstrong thought at the time that the condition was malignant, which suspicion was confirmed by Dr. Adami's report. Such cases are instructive, inasmuch as they show that irritation may sometimes set up a growth in situations where otherwise it would not be at all likely to occur, or may change the character of a growth from benign to a malignant type. This principle applies to the breast also, and should impress us with the importance of paying early attention to any lesion which, by con-

tinued irritation, may develop into a malignant character in the later years of life.

Dr. ADAMI stated that the somewhat alveolar arrangement of the cells in portions of this tumour brings up a much debated question as to the nature of these melanotic sarcomas. Are they ordinary sarcomas, or a mixture of sarcoma and carcinoma, or a very malignant form of pure sarcoma? Here, however, the evidence is certainly in favour of a pure sarcomatous nature, the growth originating immediately beneath the Malpighian layer of the epidermis. This tumour differs from many other melanotic tumours by being very well defined, and there being not much evidence of cell growth at its borders, a condition uncommon in primary melanotic growths. It being very superficial may account for it not being attached to the deeper structures. It will be interesting to note if any secondary growth appears in the gland in the groin, for often when the primary growth is of small size there is rapid increase in the secondary form.

A case of Appendicitis.—Dr. ARMSTRONG in exhibiting this specimen, stated that the clinical history was of more than usual interest. The patient, a lady, 46 years of age, a morphinomaniac, gave a history of eight attacks of pain in the lower part of the abdomen. In one of her attacks in November, 1893, she was five or six weeks in bed. Dr. Armstrong saw her for the first time two months ago, when on examination he found in the right side of the pelvis a fairly large mass, hard, painful and tender on pressure. On considering the history of repeated attacks, he advised early removal of the mass. While the patient had this still under consideration, she came and said that she had discharged about a pint of creamy yellow matter from the vagina, then on examination he found that the mass was almost all gone, and therefore came to the conclusion that it had emptied itself in that way. Two weeks ago she complained of abdominal tenderness, and he thinking that she had been taking morphine by mouth was inclined to account for it by the use of that drug. Her temperature, however, rose to 100°, and next day she began to go into a state of collapse. Subsequently the temperature dropped to 95½°, and then quite suddenly returned to normal with an accompanying improvement in the pulse. This latter favourable condition continued for some days, until one morning, when on going to the hospital he found her with a low temperature, small weak pulse, pain and extreme tenderness on pressure. Operation was at once performed. Thinking he had to deal with a tubo-ovarian abscess, he made a median incision, but on going down into the pelvis on the right side he soon reached pus. After working at what he thought was a tube he released it only to find that it was the plexure of the colon which lay to the right

of the uterus, just above the Fallopian tube, which, together with its ovary, was perfectly normal. The colon was filled with water, and found not to be perforated. Then examining the region of the caecum, the blunt and diseased appendix was found. Such a condition in a woman is very misleading, pointing as it did more to a pus tube than to a purulent appendix, especially as her husband was not above suspicion.

Acute Leukæmia.—Dr. STEWART gave the clinical history. The patient, a man, 60 years of age, was admitted into the Royal Victoria Hospital in a condition of high fever and swelling of all the lymphatic glands. These were his chief symptoms during the three weeks prior to his death. There was enlargement of liver and spleen, marked leucocytosis, white to red, varying 1-30 to 1-50. Diagnosis was acute leukæmia, but in this connection it was difficult to explain the high pyrexia, that of leukæmia being very moderate. The patient died from exhaustion, his condition being quite uninfluenced by treatment.

Dr. ADAMI gave the pathological report. The microscopical examination of the liver showed increased amount of fibrous tissue between individual cells pointing to some chronic disturbance. Sections of the pancreas also showed more fibroid tissue than normal. Cultures from the spleen upon agar-agar and beef broth showed the characteristic development of the streptococcus of suppuration. Dr. Adami stated that at the time of the autopsy he had a slight scratch upon his finger, at the site of which small pustules subsequently developed; from these he had made cultures and found very characteristic streptococcus growth. This led to a more thorough examination of all the organs, and enormous numbers of streptococci were found throughout. Emboli formed of the streptococci were found in the marrow of the sternum, in the spleen pulp, filling up the capillaries between the liver cells, in many places in the kidney, in the lymphatic gland, especially those softened glands of the mesentery about the pancreas. They all stained by Gram's method like the ordinary streptococci, and the cultural peculiarities resembled them also. They, however, differed slightly from the ordinary streptococcus of erysipelas and suppuration by growing more freely, the broth in which they grew not being quite so clear as usual, and the size of the chain was rather longer. The inoculation experiments are as yet incomplete.

Dr. BELL asked for some information as to the man's occupation prior to his illness, for it seemed to him from the clinical and pathological report that the case was one of septic infection.

Dr. GEO. BROWN wished to know whether any ear symptoms were present. The case re-

called to his mind one reported in the General Hospital several years ago, in which the only symptom was a septic temperature, and in which a diagnosis of suppurative endocarditis was made. The autopsy, however, revealed suppuration in the lateral sinus.

Dr. GUNN saw the patient when he first came to the hospital, and learned from him that he had been working recently cleaning out the sewers. Another important feature in the case was the nature of the leucocytosis. The increase of the white corpuscles finally reached the proportion of 1 in 37, and consisted solely of an increase of the polynuclear leucocytes, the mononuclear variety not being at all increased. This condition of the blood corresponds with septicæmia. Another very interesting point in the case was the peculiarity of the splenic enlargement, which instead of enlarging downwards extended upwards, its area of dullness reaching behind to the middle of the scapula, and being continuous in front with the heart dullness. At the autopsy this condition was explained by the contraction of the left lung, which accordingly permitted the upward extension of the spleen, as being the direction of least resistance.

Typhoid Fever with Double Pneumonia.—Dr. GEO. A. BROWN reported the case. D. O., age 30, complained of headaches, pain in the back and bones, dyspnoea and cough with expectoration of a rusty character. Family history negative. Patient had scarlet fever and measles in childhood and la grippe four years ago, and since that time has enjoyed good health.

Present illness began about ten days ago (Sept. 25), with chilliness, headache, pain in the back and bones, and slight pain in the abdomen, followed by diarrhoea. About Oct. 1st, he had a slight hacking cough, with expectoration of a frothy character. Thinking that it was only a cold, he tried to battle it off and remained at work until he was compelled to give it up. On Oct. 4th, I saw patient for the first time. He was in a semi-comatose condition and there was marked signs of prostration. Temp. was 105°; Pulse 120; Resp., 40; pupils were contracted and responded to light. I found it very difficult to wake him, and when awake he had difficulty in hearing, and did not understand questions very well.

On examination of the lungs I found sibilant râles all over with rapid and prolonged respiration. At the back in the right inferior scapular region there was dullness, blowing breathing and bronchophony, also some physical signs in inferior axillary region, showing extensive consolidation of the right lower lobe. On left side in left inferior scapular region there was another patch of pneumonia about two inches square.

The abdomen was covered with rose spots.

On palpation it was tense, there was tenderness and gurgling in right iliac fossa, spleen was enlarged; dullness extended from eighth rib almost to the crest of the ilium. Urine normal.

For first seven days (Oct. 5th to 12th) of his illness, patient remained in a prostrated condition. There was present a low muttering delirium, picking of the bed clothes and subsultus tendinum. On eleventh and twelfth of October patient was in a semi-comatose condition all the time, and could not be aroused when nourishment was given him. There was a cyanotic condition of the lips and finger tips. Urine was examined and no albumen found. Oct. 13th, the delirium ceased, the temperature and pulse dropped and there was profuse sweating. In the pneumonic areas there was a few reflux râles.

From Oct. 14th to 21st the physical signs resembled acute military tuberculosis, as there were numerous moist râles all over the lungs, more especially in pneumonic portions. There was a hectic flush and profuse sweating towards evening, usually lasting about two hours. There was also frequent coughing, at times followed by muco-purulent expectoration. About Oct. 22nd, physical signs in lungs cleared up; cough ceased, and there were also a few mucous râles in the bases.

The abdominal symptoms at the time were more marked, there was distention and the stools were very fetid.

On Oct. 28th, temp dropped to normal and patient made a good convalescence. Treatment was milk diet, brandy $\frac{5}{vi}$, and Trit. Strychninæ Sulp. gr. 1-30, 4 g.h., and Trit. Hydrarg Subchlor gr. 1-10 2 g.h., while the stools were fetid.

The causation of Inflammation of the Brain.—A comparison of authorities on the subject.—Dr. WESLEY MILLS read the following communication:

Owing to some remarks made at a recent meeting of the Society in regard to the relations between the blood vessels and inflammation of the brain, I have been led to look into the literature of the subject and now submit the following brief references from writers in English.

Fagge in his *Principles and Practice of Medicine* says: "Now it is well known that an embolism often sets up inflammatory processes in the parts around the vessel in which it becomes lodged."

Bristowe observes in his *Theory and Practice of Medicine*: "In a large number of cases encephalitis arises from the influence of some irritating mass as a patch of softening."

"Inflammatory changes occur about the softened areas, and when the embolus is derived from an infected focus, as in ulcerative endocarditis, there may be suppuration." According to Flint: "If the embolus is infectious it leads to the formation of an abscess."

Ross (*Handbook of Diseases of the Nervous System*), believes that, "local disease of the brain, like thrombosis, embolism, etc., often sets up surrounding inflammation of the brain."

Bartholow (*Practice of Medicine*) remarks that, "more frequently encephalitis has occurred from infective thrombi."

Osler (*Practice of Medicine*) writing of thrombosis and embolism holds that "inflammatory changes are common in and about the softened [brain] areas. When the embolus is derived from an infected focus, as in ulcerative endocarditis, suppuration may follow."

One of the principles I learned as a student from that great teacher of Medicine the late Dr. R. P. Howard, was, that in any case of fatal brain disease it was a wise precaution to examine the blood vessels of the brain, and, in fact, to look into the circulatory system generally, especially so in cases of softening, inflammation, etc.

From such an examination of the writings of the leading teachers of Medicine of the present and the immediate past as I have been able to make, it appears that such an advice is still sound. While we should welcome any new light that microbic or other processes may throw on disease, I cannot but believe that the old landmarks have not yet all been swept away.

Progress of Science.

INFORMATION FOR CONSUMPTIVES AND THOSE LIVING WITH THEM.

HEALTH DEPARTMENT,
No. 301 Mott Street,
New York, February 13th, 1894.

Consumption is a disease which can be taken from others, and is not simply caused by colds. A cold may make it easier to take the disease. It is usually caused by germs which enter the body with the air breathed. The matter which consumptives cough or spit up contains these germs in great numbers—frequently millions are discharged in a single day. This matter, spit upon the floor, wall or elsewhere, is apt to dry, become pulverized and float in the air as dust. The dust contains the germs, and thus they enter the body with the air breathed. The breath of a consumptive does not contain the germs and will not produce the disease. A well person catches the disease from a consumptive only by in some way taking in the matter coughed up by the consumptive.

Consumption can often be cured if its nature is recognized early and proper means are taken for its treatment. *In a majority of cases it is not a fatal disease.*

It is not dangerous for other persons to live with a consumptive if the matter coughed up by the consumptive is at once destroyed. This matter should not be spit upon the floor, carpet, stove, wall, or street, or anywhere except into a cup kept for that purpose. The cup should contain water, so that the matter may not dry, and should be emptied at least twice a day and carefully washed with hot water. Great care should be taken by a consumptive that his hands, face and clothing do not become soiled with the matter coughed up. If they do become soiled they should be at once washed with hot soap and water. When consumptives are away from home, the matter coughed up may be received on cloths, which should be at once burned on returning home. If handkerchiefs are used (worthless cloths which can be burned are far better) they should be boiled in water by themselves before being washed.

It is better for a consumptive to sleep alone, and his bed-clothing and personal clothing should be boiled and washed separately from the clothing belonging to other people.

Whenever a person is thought to be suffering from consumption, the name and address should be sent at once to the Health Department, on a postal card, with a statement of this fact. A medical inspector from the Health Department will then call and examine the person to see if he has consumption, providing he has no physician, and, if necessary, will give proper directions to prevent others from catching the disease.

Frequently a person suffering from consumption may not only do his usual work without giving the disease to others, but may also get well, if the matter coughed up is properly destroyed.

Rooms that have been occupied by consumptives should be thoroughly cleaned, scrubbed, whitewashed, painted or papered before they are again occupied. Carpets, rugs, bedding, etc., from rooms which have been occupied by consumptives, should be disinfected. The Health Department should be notified, when they will be sent for, disinfected and returned to the owner free of charge, or, if he so desires, they will be destroyed.

By order of the Board of Health,

CHARLES G. WILSON, *President*.
EMMONS CLARK, *Secretary*.

CIRCULAR OF INFORMATION TO PHYSICIANS REGARDING THE MEASURES ADOPTED BY THE BOARD OF HEALTH FOR THE PREVENTION OF TUBERCULOSIS IN THE CITY OF NEW YORK.

HEALTH DEPARTMENT,
No. 301 Mott Street,

New York, February 13, 1894.

The communicability of pulmonary tubercu-

losis has been so thoroughly established, and is now so generally recognized by the medical profession throughout the world, that the Board of Health of New York City has determined that the time has arrived when active steps should be taken, looking towards its prevention in this city. The Board has therefore resolved to adopt the following preliminary measures:

First—The Department will hereafter register the name, address, sex and age of every person suffering from tuberculosis in this city, so far as such information can be obtained, and respectfully requests that hereafter all physicians forward such information on the postal cards ordinarily employed for reporting cases of contagious diseases. This information will be solely for the use of the Department, and in no case will visits be made to such persons by the inspectors of the Department, nor will the Department assume any sanitary surveillance of such patients, unless the person resides in a tenement-house, boarding-house or hotel, or unless the attending physician requests that an inspection of the premises be made; and in no case where the person resides in a tenement-house, boarding house or hotel, will any action be taken if the physician requests that no visits be made by inspectors, and is willing himself to deliver circulars of information, or furnish such equivalent information as is required to prevent the communication of the disease to others.

Second—Where the Department obtains knowledge of the existence of cases of pulmonary consumption residing in tenement-houses, boarding-houses or hotels (unless the case has been reported by a physician, and he requests that no visits be made), inspectors will visit the premises and family, will leave circulars of information, and instruct the person suffering from consumption and the family as to the measures which should be taken to guard against the spread of the disease, and, if it is considered necessary, will make such recommendations for the cleansing or renovation of the apartment as may be required to render it free from infectious matter.

Third—In all cases where it comes to the knowledge of the Department that premises which have been occupied by a consumptive have been vacated by death or removal, an inspector will visit the premises and direct the removal of infected articles, such as carpets, rugs, bedding etc., for disinfection, and will make such written, recommendations to the Board as to the cleansing and renovation of the apartment as may be required. An order embodying these recommendations will then be issued to the owner of the premises, and compliance with this order will be enforced. No other persons than those there residing at the time will be allowed to occupy such apartments until the

order of the Board has been complied with. Infected articles, such as carpets, rugs, etc., will be removed by the Department, disinfected and returned without charge to the owner.

Fourth—For the prevention and treatment of pulmonary tuberculosis, it becomes of vital importance that a positive diagnosis shall be made at the earliest possible moment, and that the value of bacteriological examinations of the sputa for this purpose may be at the service of physicians in all cases not under treatment in hospitals, the Department is prepared to make such bacteriological examinations for diagnosis, if samples of the sputa, freshly discharged, are furnished in clean, wide necked, stoppered bottles, accompanied by the name, age, sex and address of the patient, duration of the disease, and the name and address of the attending physician. Bottles for collecting such sputa, with blank forms to be filled in, can be obtained at any of the drug-stores now used as stations for the distribution and collection of serum tubes for diphtheria cultures. After the sputum has been obtained, if the bottle, with the accompanying slip filled out, is left at any one of these stations, it will be collected by the Department, examined microscopically, and a report of the examination forwarded to the attending physician free of charge.

Fifth—The authorities of all public institutions, such as hospitals, dispensaries, asylums, prisons, homes, etc., will be required to furnish to the Department the name, sex, age, occupation and last address of every consumptive coming under observation within seven days of such time.

It is the earnest wish of the Board of Health that all practicing physicians in this city co-operate with the Board in an earnest and determined effort to restrict the ravages of the most prevalent and formidable disease with which we have to deal.

By order of the Board of Health,

CHARLES G. WILSON, *President*.

EMMONS CLARK, *Secretary*.

WHEN TO OPERATE FOR SQUINT.

E. JACKSON (*International Medical Magazine*, February, 1894), in a careful consideration of the question of operations for strabismus, makes the following points:

No operation should be done so long as other methods of treatment offer any probable chance of relief. The slow development of co-ordinating power in some children, and the possibilities of change by future development, should prevent early operative interference; and as a rule, therefore, operation should not be undertaken before the age of five or six years, and at that age complete correction by operation should rarely be attempted. At puberty, complete correction of the squint by operation should be

undertaken where it has been incompletely corrected or is of low degree. In adult life, the existing indications govern the operation. In cases of squint due to ametropia, the latter should be corrected before operation is attempted.

THE TREATMENT OF PULMONARY TUBERCULOSIS WITH PROFESSOR KOCH'S TUBERCULIN.

KARL VON RUCK (*International Medical Magazine*, February, 1894) refers to his earlier article, in which he reported (*Therapeutic Gazette*, June 15, 1891) twenty-five cases of pulmonary tuberculosis treated with Koch's tuberculin. He then gives the present condition of these patients.

Class A, of five cases reported, all recovered, or one hundred per cent. of recoveries.

Class B, of seven cases reported, six made a final recovery, and one improved, making eighty-six per cent. of recoveries.

Class C, thirteen cases were reported, six of which have improved, while seven have died.

After giving some precautions in regard to the selection of patients and making observations while they are under treatment, he gives his method of administration of tuberculin as follows:

"Beginning with one-twentieth of a milligramme as a trial dose, to which I have never seen a response, the next dose is one-tenth of a milligramme, and the increase is thereafter one-tenth until one whole milligramme is reached; then I increase one-fifth of a milligramme until two milligrammes are reached; next, one-half milligramme up to ten; from ten to twenty milligrammes I increase two and one-half milligrammes, and thereafter five milligrammes at a time."

He has treated one hundred patients with between six and seven thousand injections, and he therefore concludes that tuberculin is no longer on trial as an experiment, but, on the contrary, its effects are as reliable and as uniform as one could expect them to be under the large variety of individual conditions, such as constitution, stage of the disease, parts involved, or complications present.

A CASE OF MULTIPLE OSTEO-ECCHONDROMA.

WHITTAKER, of Cincinnati (*International Medical Magazine*, February), also reports, in detail, an interesting case of multiple osteo-ecchondroma.

A farmer, aged forty, received a shock and a stroke of lightning when six years old. Nine months afterward, the middle joint of the right index finger began to enlarge, and gradually all of the joints of both hands, except the thumb and little finger of the left, became involved,

so that the fingers now have the appearance of medium-sized nodulated potatoes. The largest nodule is on the index finger of the right hand with a circumference of eleven inches. The right upper and lower extremities are much shortened, owing to the development of bony masses, which deform the bones. On the right external malleolus is an enlargement about the size of a lemon. The toes of the right foot are involved in the same manner as the hands, the left foot being nearly normal. The article is well illustrated, and a careful review of the literature of this condition follows.

A CASE OF ACROMEGALY.

MOYER details a case of this rare disease, acromegaly, in a man twenty-four years of age, which began at the age of seventeen by rapid growth of the whole body, especially of the hands. At twenty the eyebrows began to enlarge. Subsequently to an attack of influenza he had had pain in the head, the hands and fingers. The present condition shows enlargement of the frontal sinuses and of the soft tissues covering them; the nose is large, the lower jaw wide, and the lips thick. The circumference of the head is 24.5 inches. The spade-like, symmetrical hands measure 9 inches in length and 4.5 inches across the palm, and are covered with coarse, thick skin. The mental capacity has failed. Examination of eyes showed a high degree of hyperopia of both eyes, squint of right eye, with some optic atrophy and amblyopia of the left.—*International Medical Magazine*, February, 1894.

A CASE OF RHINOPHYMA.

A. H. OHMANN-DUMESNIL (*International Medical Magazine*, February, 1894) reports a case of rhinophyma operated upon with remarkable success.

The patient, a man about seventy-two years of age, had an enormous acne rosacea. The mass consisted of a central and two lateral lobes, and weighed, on removal, nearly two pounds. The tumor covered the upper lip and encroached upon the lower, causing stenosis of the nostrils and affecting speech and respiration. The skin was thickened and the sebaceous ducts patulous.

Operation for removal of the entire mass was performed in the following manner: Each lobe was removed, leaving a small flap of integument on each lower portion, which brought the line of stitches near the sulcus of the ala on each lateral portion, and directly across the nose on the middle lobe. The wound healed by first intention, and only a very slight deformity remained.

Microscopical examination of sections of a lateral lobe showed the stratum corneum and

stratum mucosum normal, or nearly so, the cellular structure marked, the pigmentary layer very prominent; the corium was lost in fibrous tissue; the blood vessels large with hypertrophied walls. The sebaceous glands varied greatly in number in different sections. They contained sebaceous material, and the ducts opened freely upon the surface of the skin. Cystic bodies filled with fatty material were found. The coil glands were normal, their ducts penetrated the entire hypertrophied mass. The subcutaneous fat was about normal. Isolated fat-cells and irregular masses were found in the fibrous tissue, which he thinks were derived from sebum or from a *columna adiposa*, as described by Warren. Two half-tones show the patient both before and after the removal of the tumor.

AN IMPROVED CELL OF GLASS AND CELLULOID FOR THE PRESERVATION AND EXHIBITION OF MACROSCOPIC EYE-SPECIMENS.

C. A. OLIVER (*International Medical Magazine*, February, 1894) describes an airtight cell for the preservation of macroscopic eye-specimens. It is made of two parts, the upper one being of glass in the shape of a Petry or chemical crystallizing dish, which sets into a celluloid base by means of a deep circular groove. The glass is filled with the preservative fluid (gelatine), the specimen introduced, and the base applied, and the whole inverted, the raised bottom will press out all air-bubbles, and the glass can then be cemented to the base. A single hand magnifying-glass of any amplification or the ordinary dissecting microscope is then used for examination of the specimen.

SURGERY OF THE TRIFACIAL NERVE.

H. REINEKING, M.D. (*International Medical Magazine*, February, 1894), after briefly reviewing the literature of this subject, and considering some of the important modifications as made by Carnochen, Thiersch, Heuter, Koenig, Leucke and Musbaum, refers more especially to the removal of the Gasserian ganglion and to intercranial neurectomy as practised in the last three years by Horsley, Andrews, Rose, Hartley, and others.

He then reports a case, a summary of which is as follows:

J. B. M., a farmer sixty-three years of age, gives a history of pain in the right supra orbital region for ten years, and in the right infra-orbital and right occipital regions for five or six years. Within the last two or three years the pain has extended to the upper molar teeth. It generally starts in the frontal region, and is never first in the occipital. It is accompanied by twitching of the muscles of the parts affected. The case is one of very severe chronic intract-

able neuralgia of some of the branches of the ophthalmic and superior maxillary divisions of the trifacial nerve, accompanied by less severe but equally obstinate neuralgia in the region of the great occipital nerve.

Neurectomy of the frontal and infra-orbital nerves was decided upon, and the following operation was made: the supra-orbital nerve was exposed at its point of emergence from the supra-orbital foramen, liberated by chiselling away a small portion of the ridge, and separated as far back in the orbit as possible. By traction, twisting and a little dissection of the nerves, nearly all of the orbital portion and its branches were removed. The infra-orbital was exposed by removal of the roof of the infra-orbital canal, and grasped and twisted off in the same manner as before. A small opening into the antrum of Highmore was accidentally made, and was drained for three or four days. The wound healed by first intention, and all pain disappeared in about three days.

The points in the treatment on which the writer would lay special stress are: 1. Thorough following up, extracting, and dissecting out of the peripheral, muscular and cutaneous branches; 2. slow torsion, and gentle stretching of the central stump until it gives way.

CLASS ROOM NOTES.

—Creasote, Prof. Hare says, will often prove valuable in *Bronchitis* of a chronic type.

—Prof. Hare says that ergot will sometimes prove a valuable drug in cases of *Diabetes Insipidus*.

—Vomiting is a common symptom, Prof. Wilson says, at the onset of *pneumonia in children*.

—Prof. Wilson says, chills, very rarely mark the onset of an attack of *Bronchial Pneumonia*.

—Prof. Hare says iodine and all its preparations are contra-indicated in cases of *Parenchymatic Nephritis*.

—Colocynth is the best drug, according to Prof. Hare, to administer in cases of *Constipation* accompanying gout.

—Prof. Hare says the best agent that can be employed in cases of *Rheumatoid Arthritis* is arsenic in large doses.

—As a rule, the first symptom that presents itself in a case of *Laryngeal Diphtheria*, Prof. Wilson says, is hoarseness.

—In *Septicæmia* following infection from the uterus, we generally have a greater or lesser tendency to diarrhœa.

—*Human Vaccine Lymph*, Prof. Wilson says, produces a less troublesome sore than that caused by bovine lymph.

—Prof. Wilson does not think that ether children or aged persons should be bled or leeches in cases of *Pneumonia*.

—Ergot in combination with the bromide of potassium, Prof. Hare says, is often very serviceable in cases of *Retinitis*.

—*Chloroform*, Prof. Hare says, should never be given a patient in the erect posture; ether may be so administered.

—Prof. Parvin says that chloral injected into the rectum has been found useful in the treatment of cases of *Vomiting during Pregnancy*.

—*Rheumatism*, Prof. Wilson says, is of very rare occurrence either in very cold or hot climates. It is most frequent in temperate climates.

—*Amyl Nitrite*, Prof. Hare says, will be found to be useless in relieving pain unless the latter be due to spasm or to angina pectoris.

—Prof. Keen says that the most suitable time to operate on a child for *Harelip* is between the sixth week and the third month after birth.

—Prof. Parvin says in cases of *Puerperal Infection*, alcohol internally, in large amounts, will be found to be the most valuable of internal remedies.

—Prof. Brinton says *Pneumonia and Pleurisy* may be produced, in fracture of the ribs, by rubbing the fragments against the pleura and lungs.

—Prof. Parvin thinks that intermitting contractions and sensitiveness of the uterus are both unreliable signs in the diagnosis of *Inversion of the Uterus*.

—Prof. Wilson thinks that during the early part of an attack of one of the *Infectious Diseases*, the diet of the patient should be light, and he should not be over-fed.

—Prof. Parvin says in about one-third of all cases a chill occurs during *labor* or soon thereafter. This chill is of no significance, and is not attended with any change in the character of the pulse or temperature.

—Prof. Brinton says *Emphysema* may develop in a case of fracture of the ribs, due to the fractured rib penetrating the pleura and the lungs. As a rule, nothing need be done for the emphysema, as it will generally disappear of its own accord.

—Prof. Keen says in operating in a case of *Hemorrhage*, due to injury of the head, the question on which side to begin should not be decided by the site of the injury, but by the localizing nervous symptoms which manifest themselves.

—Prof. Keen says in *Acute Encephalitis* alcohol in any form is to be avoided in the early stages; but during the latter stages, especially when exhaustion and a typhoid condition develop, it may often be administered with advantage.

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MONTREAL, AUGUST, 1894.

POCKET BOROUGHS IN HOSPITALS.

Medicine has ever held high rank amongst the liberal professions, and none, perhaps, is better entitled to it, whether we base its claims on the devotion to duty shown by its members, or the broadness and liberality which almost invariably characterize their views. It is even one of the unwritten laws of the body, that all discoveries, even those which may have cost long years of investigation and toil, shall be placed, without delay, at the disposal of the Faculty. When a brother errs, it is our duty to counsel him; when he is traduced, to defend him, and, when in trouble, to help him. In these, and in countless other ways, have the members of our profession, in their relation with each other and with the world generally, shown a generosity of spirit and a degree of single-mindedness which challenge unqualified admiration. Nevertheless there are not wanting instances to prove that self-interest is beginning to assert itself with marked prominence, and would appear, at times, to predominate over all other considerations. This was forcibly illustrated, some short time since, when certain physicians connected with the Protestant General Hospital in Ottawa passed a resolution that those who were attended by the hospital staff, and those alone, should receive the benefits of the nursing and diet provided by the institution, and that all other patients should be denied these comforts. This naturally drew

forth an indignant protest from those members of the profession who were not of the hospital staff, and so fully was this endorsed by the public generally, that the staff rescinded their resolution; but, rather than allow patients of outside practitioners to engage private rooms, they decided to close the privilege against all.

A similar spirit of exclusion, for such it certainly is, manifests itself in connection with the conduct of two of the great public hospitals of this city—the Montreal General and the Royal Victoria. The first of these was built and is supported by subscriptions not only from the rich, but from the poor, and is regarded as par excellence the Public Hospital of Montreal. It seems incredible, yet it is a fact, that should even one of those subscribers become an inmate of this institution, he would not be permitted to have his family physician in attendance unless the said physician should happen to be a member of the staff—a hardship, it must be admitted, which affects equally patient and physician. Let us suppose the case of a gentleman who is found in a state of unconsciousness on the street. He is transferred to an ambulance, and on “coming to” finds himself in a private ward of this General Hospital. He asks that his family physician may be summoned, but, should that gentleman not be one of the staff, the request is refused. Should he even present himself at the bedside of his friend, he will not be permitted to treat or even advise one who is now, *volens volens*, the patient of this particular doctor on duty for the time, who will studiously exclude every possibility of outside interference. Should the patient ask to be removed, his family or friends will be at once warned of the danger attending any such change, and he is thus persuaded, forced would be the better term, to accept the services of one who is probably a stranger to him, at the risk of severing, it may be, a life-long connection, and with it all the moral advantages begotten of years of mutual confidence and esteem.

That the Royal Victoria, the pride of its founders, should lay itself open to charges of a similar nature, will not only astonish but pain great numbers of our citizens, who had believed that not even a suspicion of illiberality should be allowed to creep into its management. Added to the fact that this great institution is as thoroughly equipped as any hospital in America

or elsewhere, it has also a large number of private rooms, yet, following the selfish and ungenerous example of the "Montreal," these are closed to all patients other than those of the favored half-dozen who constitute its staff, and in so far, therefore, as this portion of the Royal Victoria is concerned, it cannot be said that either the general public or the members of the medical profession are free to enjoy what it has believed, and what they are given to understand, would be open to all on equal grounds. Distinguished physicians who have visited this city have expressed surprise that such a state of things should be permitted to continue in the conduct of these two institutions, more especially as it contrasts so unfavorably with that which obtains in the management of the Hotel Dieu, the Notre Dame and the Western Hospitals. The Hotel Dieu, the oldest and largest hospital in Canada, opens its private rooms, at a minimum cost, to the patients of any qualified physician, regardless of creed or country, although, considering the fact that it receives no contributions from the public, it might claim and exercise the rights of a "pocket borough" with more reason and justice than those which exercise them without even the right to claim them.

Notre Dame acts with equal generosity towards the profession, and any one of its members is privileged to place his patient in the private wards. Some narrow-minded persons may advance the argument that those two institutions are under French control, and that the French are generally more polite and generous than the English. While we should repudiate this proposition on general grounds, we meet it in this particular case by the well-known fact that the Western Hospital, which is an English institution, has opened its private wards to the profession generally from the earliest days of its existence, and keeps them open to the present day, while its management in every other respect is characterized by the fullest measure of liberality. In thus drawing attention to what we consider a grievance which should be condemned by all fair-minded persons, we are influenced solely by a sense of what we owe not only to those whose particular interests it is our especial duty to protect and advance, but to our fellow citizens generally, and to all who desire to see the public institutions of the country honestly, impartially and intelligently

governed. Let us hope our remarks will be accepted in the spirit in which they are offered, and that what is now a stain on the escutcheon of our noble profession will not be permitted to remain.

A HOSPITAL FOR CONSUMPTIVES.

We are pleased to learn from the June number of our excellent contemporary, the *Dominion Medical Monthly*, that Toronto is about to have a hospital for consumptives, a generous citizen of that town, Mr. W. J. Gage, having offered \$25,000 for that purpose. The CANADA MEDICAL RECORD has again and again insisted upon the contagiousness of the disease as well as its large death rate, and we have continually urged the necessity for special hospitals for sufferers from this disease.

It is probably owing to the work of isolation carried out by the consumptive hospitals in England that the death rate there from this disease has gradually decreased in recent years. In the meantime Dr. Trudeau of Saranac Lake in the Adirondack Mountains is doing good service by establishing a Sanitarium which should be more heartily encouraged than it is. But we have always taken the stand that, as the disease is a national scourge, Canada as a nation should take steps to stamp it out.

PERSONALS.

Dr. N. W. Senn is engaged on a new work on tumors, and in order to obtain quiet and inspiration is spending July and August among the cool breezes in the Canadian Maritime Provinces. He intends visiting Montreal on his way home.

Dr. Hingston, we see by the Toronto Medical Journals, has been a very welcome visitor at the recent successful meeting of the Ontario Medical Association, where he was invited to read a paper. Both the latter and also his speech at the entertainment following are said to have been, the one learned and the other particularly witty.

Dr. Major is spending the summer in England and the continent, while Dr. Hamilton is occupying his residence and office in Union Avenue.

Dr. Proudfoot was so fortunate as to win the election at the Montreal General Hospital to the position of Oculist and Aurist, rendered vacant by Dr. Buller's removal to the Royal Victoria. Dr. Proudfoot still retains his position as Oculist and Aurist to the Montreal Dispensary, where he has served so faithfully for so many years.

Dr. Hamilton has been elected Laryngologist to the Montreal Dispensary, where he attends on Tuesdays and Thursdays at four o'clock.

Dr. Laphorn Smith has returned to the city after a five weeks vacation to the Pacific Coast, where he attended the Gynæcological Section of the American Medical Association, of which he has been elected a member. He was one of a party of thirty physicians who were the guests of the President of the Association, Dr. Donald McLean of Detroit.

Dr. F. W. Campbell has returned from his annual vacation at the salmon fishing in New Brunswick, the doctor, as every one knows, being a past master of the art of lunding the king of fish. Dr. Campbell is building one of the handsomest residences on Sherbrooke street at the corner of Crescent street, of red and white sandstone, which will be ready for occupation this winter. He will be missed from the classical regions about Beaver Hall and Phillips Square.

Dr. McPhail has been combining business with pleasure by going on a wedding tour to visit the principal hospital cities in Europe. He has recently returned after an absence of several months with increased knowledge and improved health.

Dr. Wilson, 2436 St Catherine street, Montreal, is the latest and most welcome addition to the corps of Montreal specialists. After having spent several years in New York under Dr. Phelps, the leading authority on this branch in America, Dr. Wilson has returned to Montreal, where there has long been a great need of an Orthopedic Surgeon. Dr. Wilson is working up a nice clinic at the Metropolitan Dispensary.

BOOK NOTICES.

TUMORS, INNOCENT AND MALIGNANT. Their clinical features and appropriate treatment.

By J. Bland Sutton, F.R.C.S., Assistant Surgeon to Middlesex Hospital, London. In one octavo volume of 526 pages with 250 engravings and 9 plates. Cloth \$4.50. Lea Bros. & Co., publishers, Philadelphia.

In his introductory remarks the author states that having been convinced eight years ago of the great increase in diagnostic power that results from the combination of pathologic and clinical knowledge, he began to collect materials from man and the animals in order to make himself acquainted with the histological peculiarities of tumors. He first took up the subject of cysts; then cancer, which he employs in a sense equivalent to malignant adenoma, the species being determined by the gland in which the cancer arises. He thinks that the terms scirrhus, colloid and medullary or encephaloid have dominated the minds of surgeons and hindered progress long enough. As in his

classical work on diseases of the ovaries and tubes he makes frequent use of his great knowledge of comparative pathology. He groups all tumors into four classes. 1. Connective tissue tumors; 2. Epithelial tumors; 3. Dermoids; 4. Cysts. Each group contains several genera; each genus has one or more species; of each species there may be one or more varieties.

Mr. Sutton then proceeds to deal with each variety of tumor, introducing such a knowledge of the pathology not only of man but also of animals as is very rare. He draws freely on the wealth of specimens in the Royal College of Surgeons, bringing before our notice many strange and interesting facts which have hitherto been buried there. Pathology is generally considered rather a dry subject, but this certainly cannot be said of Mr. Sutton's book, for he presents even the driest facts in such a delightfully interesting manner that one is loth to lay it down when once started to peruse it. It is if possible made still more interesting by the very large number of engravings and colored plates. We consider that Mr. Sutton has conferred a real good upon the profession by thus rendering a knowledge of tumors, innocent and malignant, more general. We predict for it a large sale, which it certainly deserves.

DES PEURS MALADIVES OU PHOBIES. Par le Dr. E. Gelinas, Paris. Société d'Éditions Scientifiques, 4 rue Antoine Dubois, 1894.

This is rather a remarkable book, dealing with dreads or fears of every kind. Although we do not remember having seen this subject before in print, every practitioner will recollect patients who had a morbid dread of being alone; of passing under a ladder; of dirt; of spermatorrhœa and so on. The author relates many interesting cases of this kind. The treatment of course consists of moral suasion.

TRANSACTIONS OF THE AMERICAN PEDIATRIC SOCIETY. Fifth session held at West Point, N.Y., 24th, 25th and 26th May, 1893. Edited by Floyd M. Crandall, M.D. Volume V. Printed by Bailey & Fairchild, 1893.

This volume contains a number of interesting papers, but perhaps the most so are the President's address by our own esteemed Dr. Blackader of Montreal, and a paper on the Transmission of Tuberculosis to the Fœtus from either parent, by the late Dr. John M. Keating of Colorado Springs. Both of these papers are of the greatest interest. Dr. Keating thinks that in many cases tuberculosis is a congenital disease, and cites many strong arguments in support of his view.

SAUNDERS' QUESTION COMPENDS, No. 18. Essentials of Practice of Pharmacy arranged in the form of questions and answers, prepared especially for Pharmaceutical Students. (Second edition revised.) By Lucius E. Sayre, Ph.G., Professor of Pharmacy and Materia Medica of the School of Pharmacy of the University of Kansas. Philadelphia: W. B. Saunders, 925 Walnut street, 1894. Price \$1.00.

The author has shown wonderful aptitude for condensing the whole subject of Pharmacy into a very small space. There are questions and answers on every conceivable subject within the domain of Pharmacy. It is especially suitable for students while reviewing their work.

A MANUAL OF THERAPEUTICS. By A. A. Stevens, A.M., M.D., Instructor in Physical Diagnosis in the University of Pennsylvania, etc. Philadelphia: W. B. Saunders, 925 Walnut st., 1894. Price \$2.25.

This is a neat volume of 435 pages divided into eight chapters as follows: Physiological Action of Drugs; Drugs; Remedial Measures other than Drugs; Applied Therapeutics; Incompatibility in Prescriptions; Table of Doses; Index of Drugs; Index of Diseases. The chapter on Applied Therapeutics is especially good. While not sufficiently exhaustive to take the place of the larger works, students and practitioners will find this little work very convenient for reference and thoroughly up to date.

PAMPHLETS.

THREE YEARS' EXPERIENCE WITH THE ELECTRICAL TREATMENT OF FIBROID TUMORS OF THE UTERUS, with a report of forty-four cases. By W. L. Burrage, A.M., M.D., Electro-therapeutist, Free Hospital for Women. Reprinted from *The American Journal of Obstetrics*, Vol. xxix, No. 3, 1894. New York: William Wood & Company, publishers, 1894.

ABSTRACT OF TWO ARTICLES TREATING OF PROGRESS IN MIDWIFERY. By Hunter Robb, M.D., Associate in Gynecology, Johns Hopkins University, Baltimore. Reprinted from the *Maryland Medical Journal*, March 31, 1894.

A CASE OF DOUBLE VAGINA, WITH OPERATION. By Hunter Robb, M.D., Associate in Gynecology.

SURGICAL SHOCK. By Charles P. Noble, M.D., Philadelphia, Surgeon-in-Chief of the Kensington Hospital for Women.

NON NOCERE. By A. Jacobi, M.D., New York. Reprinted from the *Medical Record*, May 19, 1894. New York Trow Directory, Printing & Bookbinding Co., 201-213 East Twelfth Street, 1894.

ACUTE PUERPERAL CELLULITIS AND TRUE PELVIC ABSCESS. By Charles P. Noble, M.D., Philadelphia. Reprinted from *The American Journal of Obstetrics*, Vol. xxix, No. 4, 1894. New York: William Wood & Company, publishers, 1894.

TENO-SUTURE AND TENDON ELONGATION AND SHORTENING BY OPEN INCISION; ADVANTAGES AND DISADVANTAGES OF THE VARIOUS METHODS. Clinical lecture delivered at the Jefferson Medical College Hospital. By H. Augustus Wilson, M.D. Reprinted from *International Clinics*, Vol. I., fourth series.

HABITS OF POSTURE A CAUSE OF DEFORMITY AND DISPLACEMENT OF THE UTERUS. By Eliza M. Mosher, M.D., of Brooklyn, N.Y. Reprint from the *New York Journal of Gynecology and Obstetrics*.

PUBLISHERS DEPARTMENT.

SECURITY AGAINST IMPOSITION.

This heading is suggested by and is particularly applicable to the new advertisement of the Antikamnia Chemical Company, which appears in this issue. Antikamnia, while not suffering anything like other standard preparations from substitution, has still found it in some few instances. To the end, therefore, that there may not be even the breath of suspicion against Antikamnia, as well as to give every doctor the fullest confidence, the company has gone to the expense of withdrawing all the old stock from the market and replacing it with new. In the new form the drug is identically the same chemically and medicinally as it always has been, but every tablet bears imprinted upon it a monogram. (See advertisement.) Every package of Powder or Tablets is so wrapped and sealed and resealed as to render counterfeiting impossible. The entire profession should insist upon the safeguards provided, and there can be no question but that this action will be regarded with great favor by them.

The latest edition "Antikamnia and Codeine" tablets, can be obtained direct, or from your druggist. Each tablet contains $4\frac{3}{4}$ gr. Antikamnia and $\frac{1}{4}$ gr. Codeine.

"SIC TRANSIT."

As another exemplification of the old adage "Many are called and few are chosen," it is reported that the "Labordine Chemical Cie." has come to grief. J. H. Chambers & Co., publishers of the *Medical Review*, secured an attachment for \$75.00, and upon the Labordine people taking an appeal, the appeal bond, filed at the time, was found to be even more worthless than the account it sought to stave off. It is known also that they are behind in their rent, and that there is nothing tangible for any of their creditors. Mercantile agency reports say "there is said to be little if anything left for other creditors."

This company originally attempted the promotion of their specialty under the name of Analgine-Laborde. But more recently, however, they have been taking the back track by exhibiting the words Analgine Laborde, cancelled and followed by the announcement that hereafter this "purely vegetable product" would be known as Labordine.

This is an illustration of the result that frequently follows efforts at pharmaceutical promotion, and medical journal publishers will find in many cases the experience of the *Medical Review*.

The Canada Medical Record.

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Original Communications.

TWO HERNIOTOMIES IN A CHILD UNDER FIVE YEARS OF AGE—BASSINI'S METHOD.*

Dr. S. E. Milliken, of New York, reports in the *Medical Record* the case of a child under five years of age, upon whom he had done a herniotomy in June, 1893, for the cure of a left oblique inguinal congenital hernia, after the method of Bassini, or better known as the reconstruction of the canal, by bringing together the shelving process of Poupart's ligament and the conjoined tendon, posterior to the cord structures, with interrupted sutures of kangaroo tendon.

The obliquity of the inguinal canal was re-established, by suturing the aponeurosis of the external oblique, which had been previously divided, by a continuous suture of the same material. The skin wound was closed with interrupted catgut, and no drainage was employed. The wound healed primarily under one dressing, which was

changed on the tenth day. The patient was kept quiet for three weeks, so as to ensure union of the deep structures, where a specially prepared suture material was used.

One year later, he operated upon the hernia of the right side which was acquired, and the only difference in the technique from the operation on the left side was the total extirpation of sac. The second wound healed as satisfactorily as did the first, and the same instructions were given.

The author, who has had a large experience in the treatment of hernia at the Hospital for Ruptured and Crippled, and at the New York Polyclinic, particularly with Bassini's method, concludes as follows:

1st. When any difficulty is met with in the mechanical treatment, the radical operation should be performed even in young children.

2nd. If after six months or a year, the truss has been steadily worn, and there still exists a flabby or weakened condition of the inguinal region, the operation is indicated.

3rd. The risk of operating on children,

* Abstract furnished by author.

where strict asepsis is observed, is little, if any, more than in adults.

4th. The chances for a radical cure in children are greater than in adults, because of the more perfect reparative process at that age.

* 5th. The reconstruction of the canal is, *par excellence*, the operation, and, as shown by Bassini's statistics, has stood the test of time.

6th. To obtain the best results, a great deal depends upon the surgical technique and the suture material employed.

7th. Drainage should not be employed, if the surgeon is careful to observe the modern rules of cleanliness; for if the wound is infected during the operation, it must heal by granulation, and the drainage tube is always an additional source of danger.

8th. After primary and complete union of the whole wound, no truss is necessary.
36 West 59th Street.

Society Proceedings.

REPORT OF THE CANADIAN MEDICAL ASSOCIATION.*

The Canadian Medical, after a lapse of twenty years, returned to the old city of St. John, N.B., to hold its annual meeting. The proceedings were presided over by Dr. T. S. Harrison, of Selkirk, Ont.

After the routine business of opening and presenting delegates, Dr. Hattie, of Halifax, was called upon to read the first paper, in which he discussed the causation of Epilepsy. After discussing the nature of convulsions generally as occurring in different brain levels, he advanced the theory, that instead of so much importance being paid to the question of heredity, he inclined to the belief that it occurred *de novo*—that what is ordinarily signified by epilepsy was a group of symptoms indicative of systemic disease. This was the result of malnourishment consequent on insufficient removal of the toxic material, which as an irritant tended to instability of the cerebral cells.

He reported his results of an interesting series of experiments he has made upon the epileptics in Halifax Hospital for the Insane. This consisted in the record of the number of fits occurring using KBr with an intestinal antiseptic, the improvement over the use of KBr alone being marked.

* Specially reported for the CANADA MEDICAL RECORD.

After the discussion of this paper by Drs. Cameron of Toronto, and Wright of Ottawa, Dr. Muir of Truro, N.S., reported the history of a case of local tuberculosis of the arm which had been cured after the accidental inoculation of erysipelas. The patient was a female, aged 39, who had been suffering from the disease 14 years, the arm between the elbow and the wrist being very much swollen, brawny, riddled with sinuses which were discharging most offensive pus. Under chloroform these sinuses were scraped out, and antiseptic and deodorant dressing applied. There was little improvement in the symptoms until the wound became infected with the erysipelatous germ. The result was that the arm became completely better. The paper was discussed by Dr. Daniels, Dr. Shepherd, Dr. Bulkley, Dr. Cameron, Sir Jas. Grant, Dr. Muir closing the discussion.

The following gentlemen were elected as the nominating committee:—Drs. Hingston, Shepherd, of Montreal; I. H. Cameron and O'Reilly of Toronto; Christie, MacLaren, Tobin, Dienstadt, Macleod and Johnson, of the Maritime Provinces.

Dr. Harrison delivered his presidential address, taking as his subject his observations and experience in medicine during the past fifty years. He compared the diseases in existence then with those we have now. Since the clearing up of the country in his province of Ontario the miasmatic diseases had become things of the past. He referred to the horrible concoction of domestic medicine, such as an infusion of sheep excrement for measles, and that of cat, which he said might not be considered a bad substitute for *assafoetida*, was the "sovereignest" thing on earth for fits. The old veteran referred to many practical points in his practice. He pointed out the danger a man was in of becoming egotistical or of getting into a rut when he was so far removed from other medical men. The corrective of this he considered to be the attendance of medical associations. A considerable portion of the address was taken up in discussion of the question of inter-provincial registration. Every practitioner in Canada, he considered, should have the right of practising in any part of the Dominion, without having to submit to an examination. He believed in a high standard both as to matriculation and graduation.

The President was accorded a hearty vote of thanks for his address, and a committee was appointed to consider the matter of reciprocity discussed in his address.

The subject of appendicitis was discussed by Dr. Bell of Montreal. He reported 48 cases: 40 of them operated on with recovery; 5 not operated on; and only 3 deaths altogether. He classified his cases into the gangrenous, the perforative, the non-perforative,

and those bound in with adhesions. These cases should be watched, he maintained, by a surgeon from the first, as little could be done for its relief medicinally. He advocated surgical interference in nearly all cases. Dr. Hingston thought the operation was performed unnecessarily; no young man should attempt to enter the abdominal cavity without first consulting one or two others. He had prevented the operation 25 or 30 times, and only regretted this step in one case. He was strongly in favor of conservatism.

Sir James Grant reported two cases of appendicitis,—one the gouty form, the other, rheumatic. He found it difficult to know when to operate, and he knew of no more perplexing point in surgery. It required great observation, discrimination and judgment to know how to deal with them. He did not believe the trouble was due to concretions found in the organ. He attributed its causation to the insufficient time taken to masticate food and allied causes common to the rush of to-day.

Dr. Shepherd pointed out that the surgeons get the worst cases; so it was difficult to say just what the proportion of cases was which were operated on. Someone had spoken of unloading the cæcum at the beginning of the attack; he had never found or heard of anything being found in it at the p.m. table. He advocated operating in the interval as the safest time. In regard to McBurney's point, he thought the tenderness was due not to the appendix, but to the inflamed condition of the mesenteric glands.

Dr. Strange believed in non-interference till there was evidence of pus; and then to open the abscess, as one would any other abscess. He leaned to the conservative treatment from his experience with the disease.

Dr. Cameron was in favor of the conservative line of treatment. In the majority of his cases he had not operated at first, and had found his results to be as good as those in which the operation was performed in every case early. He thought it unfortunate that the experience of a hospital surgeon of skill should determine the matter one way or the other. With regard to the gangrenous form due to embolism of the appendiceal artery, one should operate. He agreed with Dr. Shepherd that the interval was the time to operate. The difference was, Dr. Shepherd operated before pus formed and closed the cavity, while he (the speaker) did not operate till pus formed, and he did not close the cavity.

In replying to the discussion on his paper, Dr. Bell made a strong plea in favor of his statement—"one should always operate". It was generally agreed that no one knew when to operate. If the patient were left at any moment, perforation might take place. However, in the 40 cases he had operated on, 30 were

perforated, and abscess was present at the time of operation. In three the appendix was wholly gangrenous. And, here, he said one could not wait for the tumor formation or the abscess, because there was none. In two the appendix was bound down; in three the appendix was not perforated, but gave rise to urgent symptoms, yet there was no abscess found. He used to follow the waiting treatment, but found it unsatisfactory. The mortality was much greater than that of his eleven months of the new plan. The greatest mortality statistics for the operation only amounted to from two to three p.c. The operation as a rule was not difficult. He considered the plan of waiting for pus not the best surgery. The very mild cases where the symptoms passed off in say 12 hours he would not interfere with; they were probably only cases of cæcitis.

"Eye Strain Headaches" was the subject of a paper read by Dr. Morrison, of St. John, N.B. He gave an extensive list of such cases where the true cause had not been found, and as a result the varied forms of treatment gave unsatisfactory results, only in so far as they gave rest, unconsciously, to the eyes and supported the general bodily health. A school-boy had Wednesday headaches. Resting Saturday and Sunday from study, the eyes stood the strain till Wednesday, when he was obliged to lie off. Suitable glasses directed the correction of the astigmatism, and hypermetropia effected a cure. Often the patient was treated for a long time for some other disorder altogether. The eye should, in the headache case, be taken into consideration, for he affirmed that 90 p.c. of all cases were due to eye-strain. Treatment must be directed to a correction of the mechanical defects in the cornea, to strengthen the delicate muscle of accommodation by tonics and massage; and for young ladies he recommended gymnastic exercises.

Dr. Laphorn Smith, of Montreal, followed by a paper on the treatment of diseases of the ovaries and Fallopian tubes. The subjects of gonorrhœal and tubercular salpingitis, tumors of the ovaries, ovarian congestion and neuralgia were elaborately referred to, their most prominent symptoms pointed out and also their treatment. The paper was practical, inasmuch as numerous histories of cases were recited and pathological specimens shown.

THURSDAY MORNING.

After the opening, the Nominating Committee brought in the following report:—President, Dr. Bayard, of St. John; General Secretary, F. N. G. Starr, of Toronto; Treasurer, H. B. Small, of Ottawa. Provincial officers:—Ontario, Vice-President, Dr. Shaw, of Hamilton; Secretary, Dr. Fenwick, of Kingston. Quebec, Drs. Armstrong and Campbell of Montreal. New Brunswick, Drs. McLaren and McNally.

Nova Scotia, Drs. McKeen and Hattie. Manitoba, Drs. Blanchard and Nelson. North West Territories, Drs. Haultain and Macdonald. Prince Edward Island, Drs. Maclaren and McNeil. British Columbia, Drs. Edwards and Richardson.

The use and abuse of the various cautery agents in the treatment of nasal affections was treated by E. A. Kirkpatrick, of Halifax. He referred first to the delicacy and importance of the nasal mucous membrane, and said that too often it was the subject of too harsh treatment. Caustics were used, perhaps, more in hypertrophic rhinitis than for anything else, and often too severely. Of the caustics he used, chromic acid, tri-chlor-acetic acid and the electro-cautery were the principal. The chromic acid he used in anterior applications, the cautery for the posterior applications. By the injudicious use of caustics he had seen the mucous membrane destroyed. And in some cases he had seen very serious sequelæ follow in connection with the ear, such as loss of hearing, and mastoid disease.

The Address in Medicine was delivered by Dr. Bayard of St. John, N.B.; subject—The Influence of the Mind on the Body. This was, he claimed, a subject of growing importance in this rushing age. Most authorities were agreed that surgery and medicine were rapidly advancing; but it was also agreed that nervous diseases were on the increase, particularly insanity and neurasthenia. This was largely due to the energy, competition, worry, compulsory education, sensational novels, newspapers, speculation and unrest that characterizes the last part of this century. Another cause was the migration from the country into the town, where the strife for existence was greater and sanitary surroundings bad. Relief from this condition of affairs was largely through the instrumentality of educational reform and the employment of preventive measures generally.

As an outcome of one of the points referred to in the Address, at the suggestion of Dr. Hingston, Dr. Bayard moved, seconded by Dr. Hingston, that the system of education generally pursued in the Dominion of Canada draws too largely upon the brain tissue of children, and materially injures the mental and bodily health. Drs. Cameron of Toronto, and Powell of Ottawa, thought the terms of the resolution were too sweeping, that there was no specific statement as to what department of the school system was at fault, nor to what portion of the Dominion it more especially applied. Our young people, Dr. Cameron thought, were not suffering, the older people neither, from too much education. The educational system had been the subject of the best thought of our best men, and he considered the motion too condemnatory. A resolution was then passed

that the matter be referred to a committee consisting of Dr. Powell, Dr. Hingston, Dr. Graham and Dr. Bayard.

The committee appointed to report on the President's Address reported on the matter of inter-provincial registration. It was adopted. Dr. Daniel moved, seconded by Dr. Powell, that a committee be appointed in which each of the provinces shall be represented to draw up a form of medical act, which, after being adopted by this Association, shall be presented to each provincial legislature, to be by them passed into law; and that the committee that brought in the report be asked to name such committee.

Dr. Buller moved, seconded by Dr. Laphorn Smith, that a committee be appointed, with power to add to their number, to consider the best means of obtaining a uniform standard of medical education for the Dominion of Canada; and that said committee report at the next meeting of the Association. This was carried. The discussion over the above question was long and animated, and taken part in by several of the men from the different provinces represented at the Association.

"Functional Derangements of the Liver" was the title of a paper by Dr. J. E. Graham of Toronto. Little was known of the liver and its functions until comparatively recent years; but new light was being constantly thrown on its pathology since the discovery of its glyco-genic functions, the peculiarity of its circulation and its work of manufacturing urea. The term "renal inadequacy," characterized by deficiency of urea, and subjectively by susceptibility to cold, slowness in the repair of wounds, and inability to stand ordinary surgical operations, with no apparent structural change in the kidneys, would, he considered, be more properly designated if called "hepatic inadequacy," as all the symptoms could more easily and reasonably be shown to be the result of hepatic rather than renal disorder. When the hepatic function of producing glycogen was impaired, the hepatic cells lost their power of arresting poisons from entering the general circulation. The poisons which acted deleteriously upon the hepatic cells might be classified:—1. Those introduced from without, as arsenic or poison from decomposing meats, etc. 2. Poison, the result of the action of bacteria as found in fermentation of the stomach. 3. Toxines produced in infective diseases. 4. Poisons from the intestine.

Dr. Hingston reported four cases of operations on the brain. The first two were for epilepsy. The first without the results hoped for. The second was operated on for cephalgic pain located in one spot. It had been incessant and severe for a year. The Doctor trephined, and found a hydatid pressing on the brain,

pediculated, which he removed. The patient made a good recovery. The next case was that of a young man, whom the Doctor presented, who had suffered for twenty years as the result of a fall and injury to the right side of the brain. He was the subject of paralysis of the left arm which was drawn up and flexed, the fingers also being flexed in their terminal phalanges, and extended in the first. The orbicularian and zygomatic muscles and the others on the left side were spasmodic and over-developed, the pupil was contracted, the vision and hearing on that side impaired. On operating, a thickened portion of bone was found impinging on the brain tissue, surrounded by a cartilaginous material which nature had thrown about it. There was no bleeding upon its withdrawal. The expression of the face at once became relaxed, and the patient seemed almost complete in facial appearance. The arm had improved. Dr. Hingston recommended the use of a large trephine, two inches in diameter, for these operations.

Dr. Shepherd of Montreal gave the history of a case of removal of the entire upper limb for a chondro-sarcoma involving the shoulder-joint; also of the removal of a large enchondroma of the pelvis. The first operation had not been done often, his being the first that had been done in Canada. Drs. Hingston, Cameron and Steves discussed the paper.

Dr. Buller, of Montreal, read a paper on "The Present Status of Asthenopia."

Dr. Inches of St. John, N.B., read a paper on the Prevention of Tuberculosis. He pointed out the danger of infection from diseased animals in their meat and milk, stating that in herds of cattle sometimes as high as 98 per cent. of the animals were affected. Then there was the great danger from the sputum of the tuberculous patient. Of course, suitable soil was necessary for the growth of the bacillus. He stated that in the perfectly healthy individual it could not propagate itself, or was not likely to; but in very many the general health was lowered either by hereditary disposition or through unsanitary surroundings. For its prevention the first thing to be attended to was the necessity of perfect cleanliness as regards the sputa on the part of the infected patient. The second was the establishment of special hospitals for this class of patients. These patients who belonged to the wealthy classes might be treated otherwise, but for the great majority of the cases, separate hospitals were exceedingly desirable. In Italy their establishment had lessened the mortality very greatly.

Dr. L. Duncan Bulkley, of New York, gave a paper on the treatment of skin diseases. More success would come to the general practitioner in the treatment of the skin if more attention was paid to each individual case. He

advised careful enquiry into every detail of the patient's system and habits. The history of the eruption; careful enquiry as to former eruptions; family tendencies as to presence of asthma, rheumatism, etc.—all should be made a note of. If medical men knew eczema, acne, syphilis well, they would be able to treat the great majority of their cases satisfactorily. As to Eczema, too much was often done,—it was over treated often. More and more he had grown to know that much depended on constitutional treatment in all these skin affections. The correction of some fault in diet or habit in life was sufficient to effect relief. The Doctor pointed out some of the principal points in the management of acne, syphilis, psoriasis and urticaria.

Dr. Laphorn Smith gave a very interesting exhibition of the use of the galvano cautery in which the street lighting current is used. He showed how simple it was, and how far superior it was to the old battery arrangement. The cost was trifling.

THURSDAY EVENING.

The report of the Committee appointed at the last Association to consider the matter of the establishment of a pharmacopœia was received and adopted. On motion of Dr. Starr, seconded by Dr. Macdonald, it was moved that the same committee be requested to correspond with the different medical and pharmaceutical associations with regard to the advisability of publishing a pharmacopœia, taking the B. P. as a standard.—Carried.

"The Prevention of Consumption" was the subject of a paper by J. F. Macdonald, N.S. He advocated bringing the matter of the contagiousness of this disease before the people by means of the secular press, by the establishment of philanthropic societies for the discussion of the matter, and the adoption of practical measures for the treatment of the cases. He advised the system of registration; a careful system of disinfection; government inspection of infected places; the establishment of sanatoria; and the enactment of laws to prevent the infected from spreading the infection.

Dr. H. D. Hamilton read a paper on "The Adhesions of the Soft Palate and their Treatment."

"A Medico-Legal Romance" was the subject of an interesting paper by Dr. Steves, of St. John Lunatic Hospital.

Dr. K. N. Fenwick then read a paper on Hysteropexy. It was discussed by Dr. Cameron, of Toronto, and Dr. L. Smith, of Montreal.

After the customary votes of thanks, the meeting closed. The next meeting of the Association will be held in Kingston, Ont.

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, April 20th, 1894,

JAMES BELL, M.D., PRESIDENT IN THE CHAIR.

In a few words the truth in regard to inflammation and suppuration of the brain seems to be thus: While an inflammation of the brain may arise and go on to supuration without the blood vessels being especially concerned in a causative way, and while a thrombus or an embolus may not give rise to inflammation, yet on the other hand inflammation and suppuration may follow sooner or later, and is almost sure to do so if the thrombus or embolus be due to some infective process near or remote. It follows therefore that the examination of the blood vessels of the brain, both venous and arterial, is a sound procedure in all cases of gross brain lesion.

Dr. ADAMI remarked that he presumed the paper was intended, by Dr. Mills, as an answer to his (Dr. Adami's) statement at the last meeting, that emboli never caused suppuration. He, at the time, understood Dr. Mills to mean that suppurative inflammation of the brain might be due to an infarct in that organ, that is to say, to the simple blocking of a vessel by some non-infective material. This he regarded, and still regards as impossible. To have suppuration and the formation of an abscess (as there was in the case then being discussed), one must have the presence of a micro organism. Every metastatic abscess is the result of the carrying to and the blocking of some vessel by micro-organisms, which cause a destruction of tissue, etc., at that point. A simple infarct, on the other hand, causes necrosis, and round about the necrosed area one may get a zone of simple inflammation, but never the formation of pus. The authorities quoted by Dr. Mills, in his paper, may be divided into two classes: (1) Those who are referring to simple inflammation; (2) those who are referring to suppurative inflammation, and it will be found that they both agree pretty closely with the foregoing views. He pointed out that in giving his description of the brain, he had referred to the atheromatous condition of the vessels.

Dr. MILLS admitted that his paper was intended as an answer to Dr. Adami's treatment of his comments on a case discussed at the last meeting. In asking the question that night, he simply wished to know whether the blood vessels of the brain had been examined, as while he did not wish to belittle the importance of the more recent methods of bacteriological research, yet he thought it inadvisable to desert entirely the good old landmarks of pathological investigation, and as such he regarded the condition of the vessels as something never to be overlooked.

The late Dr. Joseph Workman.—Dr. GIRDWOOD called the attention of the members to the death of Dr. Joseph Workman, of Toronto, who was an Honorary Member of the Society, the oldest living graduate of McGill University, and was connected by marriage with one of our present most prominent members. He moved—"Resolved, that the members of this Society have heard with deep regret of the death of Dr. Joseph Workman, of Toronto, who was an Honorary Member of the Society, and that they desire to express their high esteem for the late Dr. Workman and their sympathy with the family of their deceased friend and fellow-worker; and that a copy of this resolution be forwarded to the representatives of the family."

Dr. WESLEY MILLS, although regretting the occasion, had great pleasure in seconding the resolution. He knew Dr. Workman, he had felt the influence of his presence for good, and knew a number of men who had experienced the same. Dr. Workman, in fact, was one of those men who influenced profoundly almost every person with whom they come in contact. He had made some important contributions to our Society, and was for many years a translator of scientific Italian medical work, which, if he had not translated, would most likely have remained entirely unknown to the majority of the profession in Canada. In this respect he even went to the trouble of translating an important Italian work on the brain, for which he never got a publisher. He was in many ways an extraordinary man, a man with the courage of his convictions. For many years in Ontario he fought the battles of the profession through the press, and we to-day are reaping the fruit of the victories won by this great Nestor over the iniquities of his time. Dr. Mills expressed it as his conviction that, with the exception of the late Dr. Howard, perhaps there was no man in Canada who was so generally respected and admired by his professional brethren, and, indeed, by all who knew him intimately enough to appreciate the nobility of his nature, as was Dr. Workman.

Stated Meeting, May 4th, 1894.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Foreign Body in the Bronchus.—Dr. BELL exhibited a short piece of lead-pencil, with a brass top, out of which the rubber had fallen, that he had recently removed from the lower division of the left bronchus of a child. A week ago last Thursday, a little girl eight years of age, while nibbling the end of her lead pencil, was struck on the back of the head by a school-mate; the pencil slipped from her fingers into her mouth, and being a nervous child, she jumped up, inspired, and drew it into her larynx. A fit of strangulation followed, lasting

about fifteen minutes, and nearly proved fatal. A doctor was immediately called in; she recovered sufficiently to walk home, but coughed violently throughout the night. Her family doctor saw her at ten o'clock that night, but as she was then sleeping, he made no examination. The next morning, on calling, he found the left side of her chest collapsed and dull, with no evidence of air entering the lower lobe, and very little the upper lobe of that lung. The cough then had almost ceased, but she complained of great pain, which she vaguely referred to the region of the nipple. Her temperature rose during the day, and in the afternoon had reached as high as 103.5°. She was brought to Montreal that day, and when Dr. Bell saw her in the evening, at the Royal Victoria Hospital, her temperature was 104°, respiration 50 to 60 per minute, pulse 140; she was very restless, and complained of great pain in the situation already mentioned. The collapse of the left side was so marked as to be visible to the naked eye, and auscultation revealed that absolutely no air was entering the lower lobe, while in the upper only a very feeble sound, without any vesicular murmur, could be heard. His conclusions were, that the piece of pencil had entered the left bronchus, into the lower division of which it had become impacted so as to completely occlude it, while its end, lying across the orifice of the upper division, partially blocked its lumen as well; that in this position it acted as a bullet valve, which, when she coughed, permitted the residual air to be expelled, but which upon respiration became firmly impacted, and prevented the entrance of air to the lower lobe, and allowed very little to the upper. Recognizing the condition as a serious one, Dr. Bell thought it better to postpone the operation until the morning, by which time he could have the assistance of Drs. Stewart and Riddick in consultation. With their concurrence, the next day (Saturday), a low tracheotomy was performed, and the trachea opened below the isthmus of the thyroid. Before attempting the extraction of the foreign body, the child was placed in what might be described as an exaggerated Trendelenberg's position, with a pillow beneath the back of the neck, to throw the head back; so that if he succeeded in dislodging the foreign body, gravitation would cause it to fall downward towards the wound in the trachea, and thus prevent it from being drawn into the other bronchus. To reach it, an angular forceps, with blades $3\frac{1}{2}$ inches long, and the angle nearly ninety degrees, were used, the angle of which went completely into the wound, and thus permitted the blades to be manipulated with great ease. Having succeeded in grasping it with the forceps, he dislodged it from its impacted position with a little jerk; but then, fearing he might have been mistaken, and have

caught hold of a ring of the bronchus instead, he let go the object, for the purpose of satisfying himself further. Immediately, however, there was a gush of pus up through the tracheal wound, which threatened the patient with instant asphyxiation, but, fortunately, not having withdrawn the forceps, he passed them down again, and striking the brass end of the pencil, which happened to be uppermost, he immediately withdrew it. All symptoms of urgency disappeared at once. The next morning, on examining the chest, air was found entering both lungs freely, a few râles were found in the lower lobe of the left lung anteriorly; but since then these have disappeared, the child appears quite normal, and is only waiting for the closing of the tracheal wound to return to her home.

Dr. JAMES STEWART had the privilege of seeing the child before, during and after the operation, and felt honored that he belonged to a profession capable of accomplishing such beneficent results. It was quite clear to any person who witnessed the great distress under which the little patient labored, that she could have lived but a very few hours. An interesting feature was the change in the physical signs which the plugging gave rise to; percussion over the lower half of the left lung gave a note quite as flat as that met with in pleural effusion, while over the upper half, though not so marked, it was still less resonant than normal. On listening over the lower half, nothing at all was heard, while in the upper portion one had tubular breathing. These phenomena are worthy of consideration as illustrating how respiratory sounds in health and disease are produced.

Six cases of Pyosalpinx.—Dr. A. LAPHORN SMITH read the reports of the cases.

Urinalysis in One Hundred Cases of Ether Anæsthesia.—Dr. GORDON CAMPBELL read a paper on this subject, of which the following is a synopsis:—Specimens were examined of the urine before, during the actual time of, and after the anæsthesia and the occurrence of albumin, sugar and acetone noted and the amount of urea estimated during the actual anæsthesia as compared to the normal. The amount of urine secreted while under ether anæsthesia was found to be within the normal limits, but the amount of urea excreted was largely diminished, averaging only ($\frac{3}{8}$) three-eighths of the normal, i.e., at the rate of 177 grains per diem. Both the amounts of urine and of urea varied inversely with the length of anæsthesia. Albumin was found in the urine secreted during anæsthesia in 6 per cent. of the cases, and in three of these the presence of a sound in the bladder during part of the time was looked on as a possible cause. In no case did the amount of albumin exceed 2 grammes per litre, and in every case it disap-

peared the following day and was considered to be of vaso-motor origin. Sugar was not found as a product in any of the cases. Acetone was invariably present for two days following anæsthesia, and in 64 per cent. appeared during the administration. It lasted from 3 to 7 days after.

Dr. BULLER reminded Dr. Campbell of a case in which he had administered ether to a patient who was in a very advanced condition of saccharine diabetes, and who became dangerously cyanosed during the administration. Noticing that no allusion had been made to any such case in the paper, the speaker wished to know if Dr. Campbell had ever since met with any similar case.

Dr. REED wished to know what test had been used for acetone, also whether the latter was present in sufficient quantity to be recognizable without distillation.

Dr. LAPHORN SMITH declared himself as no friend of ether, but would like to give it its due. He did not think the ether was responsible for the diminished quantity of urine secreted after anæsthetization. The preparatory treatment which is employed in cases of laparotomy would alone have this effect. For some days before the operation a patient is kept on dry food, and purged freely by means of cathartics, thus getting rid of a large quantity of water from the system; the day previous to the operation the patient is not allowed any water to drink; and again some operators prohibited food for 24 hours after the operation. All this must have a very considerable effect in lessening the quantity of urine. Now, as to the diminution in the quantity of urea, he ventured to say that this diminution was not confined to the patient, but that both the operator and the anæsthetist would find themselves similarly affected. It must be remembered that urea is oxidized nitrogen, and that during every hour that a person is in a room without much air, or with air deficient in oxygen, the oxidization of the nitrogen into urea becomes more difficult, and it is often compelled to stop at the uric acid stage. For his own part, he has frequently found himself, after a prolonged operation, in a crowded room, to be suffering from soreness or aching in the joints, which he attributed to an excess of uric acid in his blood. Again, as to the safety with which Dr. Campbell has administered ether, he thought more credit was due to the anæsthetist than the anæsthetic. A great deal was the result of the use of Clover's Inhaler, but this was an apparatus which everyone could not manipulate with success; very few have been as successful with it as Dr. Campbell. By means of it, the quantity of ether administered during a given time is much less than would be required to keep up the same degree of insensibility were the ether administered by any other means; as a result, therefore, the patient con-

sumes less of the drug per minute or per hour and consequently runs less risk.

Dr. HINGSTON complimented Dr. Campbell on the spirit of thoroughness with which he had conducted these investigations; and expressed a wish that Dr. C. might undertake a similar series of experiments with chloroform. To have the same observer study the properties of the two drugs would be much more satisfactory than two investigators each confining himself to one.

Commenting on the details of the paper, Dr. Hingston took exception to the term "post" being used to designate the period during which the patient was really under the influence of the anæsthetic, and suggested that a better division would be into "ante," "per" and "post," or before, during and after the administration.

Dr. WESLEY MILLS praised very highly Dr. Campbell's paper. He concurred in Dr. Smith's criticism relative to the changes brought about in the urine from excitement, etc., as factors which should be taken into consideration when estimating the effects of the anæsthetic on that secretion. In this respect he alluded to the differences which he had frequently noticed in his own urine after lecturing, or when laboring under the strains of examination time, differences which a colleague of his had also observed.

Dr. JAMES BELL expressed himself as greatly interested in Dr. Campbell's observations. As a routine practice he was accustomed to use ether as an anæsthetic, reserving chloroform for certain conditions where the former was said to be contra-indicated. One of these was in affections of the kidney. He had never been able to see any good reason for this restriction, and a study of Dr. Campbell's cases was not calculated to remove the doubt. Only six cases of albuminuria appear in this list; in three of which a sound having been passed into the bladder is sufficient in itself to account for albumen in the urine. Relative to the undoubted diminution of urine and urea following ether anæsthesia, it must be remembered that such phenomena are susceptible of more than one explanation. The length of time during which the anæsthetic had been administered, and the effects of the shock proper to the operation itself, have to be taken into account in this respect. At the same time, Dr. Bell thought it well to remember that one hundred cases were after all a very small number for us to draw any positive conclusions from; to do this, the investigation should be continued and extended over a great many hundred cases if possible.

Dr. GORDON CAMPBELL, in reply to Dr. Buller, said he remembered well the case referred to, and thought that the cyanosis in that case was not due to the ether, but to a spasm of the glottis, because upon introducing a finger

into the patient's mouth, and raising the epiglottis, the spasm was relieved. The only other case he had seen with sugar in the urine took the ether normally, although it must be said that here the amount of sugar was very small—a mere trace only.

In answer to Dr. Reed, he said it was his practice always to distil the urine before testing; he tried once or twice testing the specimen direct, but did not meet with much success, and thought it would not be easy to detect in that way.

With regard to Dr. Bell's remarks, two cases showed pus in the urine before the operation, and as far as they could judge by the eye, and by microscope, the condition afterwards remained the same. He did not mention these, as two cases he considered proved nothing.

As to the time occupied in the operations, Dr. Campbell explained that most of these cases had been drawn from his experience in Dr. Gardner's Private Hospital, where, having no fear of the anæsthetic, they were accustomed to give the ether in the patient's room, and keep her under the influence of it until she returned there; in this way the length of time occupied by anæsthesia might sometimes exceed by an hour the time of the operation.

Dr. WM. GARDNER, in reply to Dr. Smith who had called attention to the importance of the preparatory treatment in laparotomy in influencing the diminution in the quantity of the urine, said that his patients had very little preliminary treatment. His operations are performed at 9 a.m.; a dose of castor oil the night before, and at 7 a.m. they have a cup of beef tea. This constitutes all their preparatory treatment.

Exophthalmic Goitre.—Dr. A. W. HALDIMAND gave the clinical history of a case which came under his observation in the Metropolitan Dispensary. The symptoms were exophthalmos and goitre which first appeared six weeks ago. There was no tachycardia, which is peculiar, since authorities seem agreed in considering this an ever present symptom. Neither were there other circulatory symptoms, such as throbbing of the carotids or flushing of the face. There was nothing in the family or personal history of the patient to account for the disease. The patient was a barber by trade, 27 years of age, and with the exception of a few attacks of gonorrhœa, never a day sick in his life. Auscultation revealed a slight systolic murmur, and his pulse was found to be somewhat irritable. The treatment employed was eight minims of the Tinct. Belladonnæ three times daily, under which the goitre rapidly diminished. The interesting features in the case, and those which he thought warranted his bringing it before the Society, were the acuteness of the onset and the absence of tachycardia.

Stated Meeting, May 18th, 1894.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Morphœa.—Dr. GORDON CAMPBELL exhibited a case of this rare skin disease. The patient, a Russian girl about 25 years of age, showed in the left mammary region an irregular patch of an ivory white color, having a smooth and almost polished appearance and surrounded by a violet zone. The skin over the affected area was distinctly thickened. The symptoms were a slight tingling and itching on the patch. It had been present for the past nine months, while she has been living three years in this country. This is a very rare affection, only occurring once in several thousand cases of skin diseases, and, as far as he (Dr. Campbell) could learn, it is the first case of the kind ever seen in the General Hospital. This affection is regarded by Radcliffe Crocker as a form of diffuse scleroderma.

Dr. FOLEY had only seen three such cases. Dr. Crocker's statistics give its frequency of occurrence as 6 in 10 000 cases. He wished to know if Dr. Campbell had tried the massage treatment in this case.

Dr. LAFLEUR had seen one case of diffuse scleroderma, which, although spread over the whole body, bore a close resemblance to this case. The infiltration was even more pronounced than here, giving the skin a peculiar brawny feel, and although the blanching of the skin was well marked, there was yet no zone of redness. It was at first thought to be an œdematous condition; but as there was no pitting on pressure, this view had to be given up.

Dr. GORDON CAMPBELL, in reply to Dr. Foley, said he had purposely refrained from active treatment, as he wished to preserve the features of the case in all their distinctness for the members of the Society. An interesting point about morphœa is that it occurs on the breasts of woman, and it is thought that the irritation of the corsets acts as a causative agency. That does not seem unlikely to be the case here, as the patch occurs right on a line with the upper margin of the corsets.

Caries of the Vertebrae.—Dr. WILLIAMS exhibited a specimen of tubercular spine removed at a recent autopsy at the Royal Victoria Hospital. The tenth dorsal vertebra was affected, the changes in which were noticed chiefly in the body. The latter was increased in size, extending slightly forwards, laterally, and backwards into the canal. As a result of this last extension, the canal was diminished in size by five or six centimetres, which gave rise to a pressure on the spinal cord. The intervertebral substance, however, seemed slightly affected, the bone having grown over it in the canal.

Dr. ADAMI called attention to the fact that in the intervertebral disc immediately above the tenth dorsal vertebra there was a small calcar-

eous mass evidently tubercular in origin, and indicating apparently, from its relationship, that the disease had commenced in the intervertebral disc and thence had extended into the bone.

Dr. JAS. STEWART had this case under his care, and the symptoms pointed clearly to a compression myelitis. For a time there were marked symptoms of irritation of the nerve roots. The extreme tenderness of the bones was an interesting feature, and one not always seen in such cases; for instance, Dr. Bell has at the present moment two cases of tuberculosis of the spine under his care in the Royal Victoria Hospital, and in neither of them is there any special tenderness. The question arose whether an operation in this case would have been followed by any beneficial results; but as the patient was so far reduced when admitted to the hospital, it was doubtful whether he could stand the shock of an operation.

Dr. GUNN had also seen this case. The patient came to the Hospital complaining of lumbago, lasting over a year. He felt pretty well otherwise. Examination revealed some tenderness over one or two vertebræ, and it was on this account that he was admitted. Considering this case, Dr. Gunn thought that all cases of lumbago, accompanied by tenderness of any of the vertebræ, should be regarded with suspicion.

Dr. JAS. BELL took a great interest in cases of this kind. It seemed to him that in a case where the cord is pressed against the unyielding vertebral arch, the removal of that arch should relieve the symptoms, provided it was done early enough. But as this is seldom the case, it becomes a puzzling question to decide what cases to operate upon and what ones to leave alone. The opinion held by many in the profession, that in these cases of paraplegia the condition was apt to undergo spontaneous improvement, had much to do with deterring men from early operation, and in his experience this opinion had very little foundation. He could recall several cases where he regretted not having operated early, when the paraplegia first appeared, and where he would have operated were it not for this prevailing impression. In cases of this kind he thought the actions of surgeons should be prompt and fearless, for it requires only a comparatively short time for degenerative changes to take place in the distal portion of the cord. He had already operated upon two cases, in both of which the paraplegia had been complete for two or three months. Both seemed to improve for the first two or three days after the operation, but in neither was the improvement permanent. He asked how long after the paraplegia develops can one reasonably expect recovery to take place on removal of the pressure?

Dr. JAMES STEWART, in reply to Dr. Bell's question, said that in an ordinary case of descending degeneration of the lateral columns,

recovery may take place many months afterwards, if the pressure is of an ordinary kind. Of course, where there has been absolute obliteration of all the functions of the column, one would not expect restoration to take place after three or four months.

Osteo-Sarcoma of Femur.—Dr. WILLIAMS showed a specimen of a bone tumor occurring in the lower portion of a femur, removed by Dr. Kirkpatrick, which measured about 20 inches in circumference. The tumor was lobulated in outline, and quite a large hæmorrhage had occurred in front of the knee joint, and numerous hæmorrhages were noticed in various parts of the growth. The inner surface of the patella and the head of the tibia were somewhat eroded.

Dr. ADAMI said that microscopically the tumor presented the characters of a periosteal sarcoma of the large mixed cell type. A little distance from the surface the cells were to be found embedded in a hyaline stroma, and the section suggested the possibility that we were dealing with a malignant enchondroma. In the more central portions hæmorrhagic and necrotic areas existed. Areas also were seen which had almost the appearance of cylindroma. An interesting point in this tumor was the tendency which apparently existed for the tumor substance to radiate from the joint. The early history also received in this case was the history of a joint trouble. At first the growth was the periosteal, but after a time it grew inwards also; yet the periosteal growth always predominated, as could be determined by observing the shaft, where it could be noticed that the tumor extends to a higher point externally than internally.

Dr. KIRKPATRICK showed the members a photograph of the limb taken prior to the operation. The history extended back only ten months. The patient was a farmer, 22 years of age. Sharp transient pain in the knee joint was the first symptom noticed. There is no history of injury. At the end of four months he could not bend the knee beyond a right angle. Until the 6th month it was regarded as an ordinary synovitis, and treated with blisters, etc. At the seventh month two lumps noticed at the knee joint; followed, two weeks later, by similar lumps in the popliteal space. In the middle of the eighth month these lumps had grown into one mass around the knee joint; and the circumference of this mass measured eighteen inches. One month later, or about the end of the ninth month, it had increased to a circumference of twenty-two inches, at which time the operation was performed. Ten months ago the patient weighed over 200 pounds, but when he entered the hospital he only weighed 146½. Amputation at the hip joint was performed on April 22nd by Wyeth's method. The limb was transfixed by two iron skewers, which were pressed completely through the limb, and proved a most

satisfactory means of fixing the esmarch. No blood was lost when the circular cut was made, except what was in the limb below the point of removal, which, however, was considerable, for, owing to the nature of the tumor, no bandage was employed to empty the limb of blood. After loosening the skewers and the constricting band below them, much blood was lost. To counteract the effect of the loss, two hypodermics of strychnia, and two enemata of saline solution were administered, and it was noticed that each of the latter had a marked and almost immediate good effect on the pulse. The patient is now doing well and going about the ward. The wound was dressed in the ordinary way.

Intra-Capsular Fracture of the Femur.—Dr. WILLIAMS showed a specimen which was obtained by Dr. Adami from a woman, 75 years of age. She lived three years after the fracture occurred, and was able to walk about with the injured limb. The specimen shows that no bony union had taken place; numerous fibrous bands pass across the fractured surfaces, uniting them with fibrous material so dense that it resembled cartilage, and was firm to the feel. In reference to a discussion which took place at a previous meeting as to how often, if ever, bony union occurs in these cases, Dr. Williams remarked that he had looked up all the specimens of this kind in the McGill Museum, and found that out of ten specimens of the unimpacted intra capsular fractures, not one showed bony union; while of two of the impacted variety, one showed union.

Hyperostosis Following Fracture.—Dr. WILLIAMS exhibited a tibia and fibula, illustrating this condition. The tibia showed signs of two or three old fractures which had occurred at different times. A large bony growth extended between, and united the tibia and fibula in their upper portion. This bridge, as it may be called, of bone is of interest, inasmuch as it frequently takes place in either the leg or forearm when both the bones are broken. Firmly attached around this bony growth was a large mass of firm fibrous tissue with numerous sinuses from which pus was oozing.

Dr. JAMES BELL remembered the subject of the last specimen shown. He was a man about 40 years of age, and a hard drinker, who had a compound fracture of the leg, from which he recovered with difficulty, but was ultimately discharged from the hospital with his wounds all healed and his bones united. He soon had another spree, in which he again fractured his leg (again a compound fracture) in the same place.

Exostosis Bursata or Exostosis Cartilaginaria.—Dr. BELL showed a specimen. This form of exostosis differs from the ordinary by growing in the neighborhood of joints, from the epiphyseal line, and the growths are usually directed away from the joint at an angle of 45° from

the shaft of the bone. They are covered at the free extremity with cartilage, and enclosed synovial membrane which often contains a large number of free bodies. The first case of this kind which came under Dr. Bell's care was in 1888, at which time only two cases were on record, the report of his case being then the third. In Prof. Billroth's case 25 free cartilaginous bodies were found within the synovial sac, while his first case contained 55 similar bodies. Bergmann reports a case in which 500 were found. The exostosis in the present case was situated in the region of the shoulder joint, and grew from the bicipital groove at an angle of 45° from the shaft. As to the pathology of these growths—they are generally explained by Cohnheim's theory of embryonic cells, lying dormant until something occurs or the conditions are favorable for them to take on active growth.

Cultures of Gonococci.—Dr. ADAMI reported a case of gonorrhoeal synovitis, the clinical history of which is rather interesting as showing the importance of bacteriology as aid to diagnosis. The credit of reporting this case was due to Dr. H. S. Shaw, resident surgeon at the Royal Victoria Hospital, who, Dr. Adami stated, had done all the work connected with it. The patient was a man with a swollen knee and a slight thin discharge from the urethra. The question arose as to whether or not it was a specific synovitis. The knee having been rendered carefully antiseptic, a Pravaz syringe was used to withdraw some drops of clear fluid which were immediately spread upon the surface of two tubes of glycerine agar, which ten days afterwards showed the gonococci culture. Subsequently gonococci were discovered in the urethral discharge. Dr. Adami remarked that it is of importance to know that the gonococci may be cultivated on glycerine agar, a material which is easily obtained, where hitherto it was thought to require blood serum for its growth. He pointed out that the growth was very slight, and that it might be not so much a growth upon the glycerine agar as upon the fine film of synovial fluid which covered it.

Pseudo-Membranous Enteritis.—Dr. GUNN read a paper upon this subject.

Dr. LAFLEUR remarked that he had seen one of the cases reported by Osler, while at the Johns Hopkins Hospital. The ailment did not impress him as being very distressing. A slight looseness of the bowels, with the occasional passage of very perfect intestinal casts, which microscopical examination showed to be composed of a hyaline laminated material, with here and there desquamated cells from the mucosa, but with very few leucocytes or red blood cells. As far as he could remember, the treatment was local—washing out the bowels, etc.

Dr. ALLAN had a case of this kind which came under his care at the Montreal Dispensary.

sary. She passed large quantities of these casts daily.

Dr. MORROW wished to know if this condition was analogous to the somewhat similar condition which occurs in the respiratory tract.

Dr. GORDON CAMPBELL had seen a case of this nature in which the chief trouble was the involuntary passage of the casts. They were most commonly passed during sleep, and for a time it was not settled whether they were of rectal or vaginal origin.

Dr. GUNN, in reply to Dr. Morrow, said it was his impression that the pseudo membranous condition which occurred in the bronchi was inflammatory and allied to the diphtheritic form. There was consequently no similarity between them.

SOCIÉTÉ DE CHIRURGIE.

STRANGULATED HERNIA.—M. Chaput read the history of two cases of strangulated hernia complicated with gangrene. The first was that of a woman, aged 50, who suffered for five days from strangulation of a voluminous umbilical hernia; fecal vomiting and collapse had already set in when seen by one of his *confrères*, who immediately practiced a long median incision and opened the sac, giving issue to a quantity of fetid liquid. The protruding omentum was resected and the intestinal folds detached from their adhesions, on one of which a long ribbon of gangrene was discovered. Pinching up this portion of the intestine and turning the diseased part inside, leaving to nature the care of discharging it, the operator sutured the edges of the artificial fold together and completed the operation in the usual manner. The second case, reported by the same surgeon, was that of a strangulated crural hernia in a woman aged 58. At first taxis was tried, but it was soon evident that an operation was necessary. The strangulated intestine was found to be sphacelated to an extent of four inches, and became detached on very gentle traction. Both ends were sutured, and the intestine returned. A stercoral fistula was the immediate result, but in a few days it closed spontaneously, and in three weeks after the operation the patient was quite well.

M. Chaput stated that taxis in such cases was bad practice, and should be absolutely proscribed. A few weeks previously he was called to a man, aged 50, who had a right strangulated inguinal hernia. Trying taxis to his satisfaction he succeeded in reducing the hernia, but the following day his colleague was obliged to operate, as the hernia had returned. The intestine being sphacelated to a certain extent, an artificial anus was made, but the patient sank in a few days from exhaustion. M. Chaput said that if he had not tried the taxis, but operated, the man would have recovered.

One of the most difficult questions in surgical therapeutics was to decide between suture of the intestine and artificial anus. The creation of an artificial anus is extremely simple, and can be effected without the aid of chloroform. It presents the considerable advantage of emptying rapidly the upper end of the intestine of products which contribute to poison the organism, but it presents, on the other hand, numerous disadvantages resulting from the flow of matter, which provokes frequently the development of phlegmon of the walls, inoculating the peritoneum, causing septic thrombosis of the femoral vein, with pulmonary embolus and death, as has happened in some cases within his knowledge. The mortality of this operation is placed by a very high authority at 76 per cent., and even if the patient survives all complications he remains afflicted with a disgusting infirmity, which cannot be cured but by a series of grave operations.

Resection, on the other hand, followed by suture of the intestine, does not present the same drawbacks; the mortality is less, and the operation susceptible of being rendered much easier to perform. It is true that with the suture secondary gangrene or perforation of the upper end is to be dreaded, but this accident can be avoided by not reducing the intestine, and if gangrene supervene an artificial anus can be made.—*Medical Press and Circular*, March 28, 1894.

MEDICAL SOCIETY OF LONDON.

DIAGNOSIS OF DIPHTHERIA.—Dr. Wethered, in a paper on this subject, stated that he had examined 26 cases of diphtheria and 16 of follicular tonsillitis. His method was to obtain particles of the deposit from the throat by means of a strong piece of platinum wire fixed in a glass handle and bent into a loop at the end. The portion thus obtained was drawn over the surface of glycerin agar-agar contained in large test-tubes, which were then placed in an incubator at a temperature of 37° C. (98.6° F.) for twenty-four hours, and the cultures examined microscopically. In 16 cases of follicular tonsillitis he found staphylococci only, and in 1 case bacterium termo also, but no organisms which could in any way be mistaken for the bacilli of diphtheria. In 26 cases of diphtheria he found the Klebs Loeffler bacillus fifteen times, streptococci three times, and staphylococci eight times. Baginski had stated that streptococci might cause mild forms of diphtheria, but of Dr. Wethered's cases 2 recovered and 1 died. He offered the following suggestions: 1. That bacteriological examination of material obtained from the throat in doubtful cases of diphtheria might prove of great service in diagnosis. 2.

That on microscopical examination there was no great danger of mistaking organisms found in cases of follicular tonsillitis for the pathogenic organism of diphtheria, although the naked-eye appearance of the cultures were not characteristic. 3. That as some observers had described non-malignant organisms similar to the diphtheria bacillus, in case of doubt plate-cultures on gelatin should be made as control experiments.

MILK DIET IN BRIGHT'S DISEASE.—Dr. Ralfe gave the result of observations as to the effect of milk diet on the secretion of urine, as regards its quantity, amount of solids, and excretion of urea and albumen, in patients suffering from nephritis in its different stages, such as ordinary acute nephritis, chronic nephritis with active hypertrophy of the left ventricle, with strong pulse-tension; chronic nephritis with failing cardiac action and degenerated vessels; chronic renal cirrhosis from venous congestion, the result of valvular disease of the heart, and nephritis complicated with lardaceous disease. The patients at first for one week were placed on an ordinary diet (containing 4 ounces—124 grammes—of meat), and afterward for two or three weeks kept on milk, and then again for a week resumed the ordinary diet. The results were given on charts showing the weekly averages of the quantity of urine passed, the solids, the urea, and albumen. With regard to acute nephritis, it was found that the effect of a milk diet was to increase the quantity of urine, the amount of solids, and the urea, and to diminish the albumen, all of which was reversed when a more stimulating diet was resumed. In the chronic cases the milk diet had not such a marked diuretic effect on the amount of urine secreted, but caused a decided fall in the quantity of solids and of urea. The effect on the amount of albumen was varied. In nephritis associated with high pulse-tension it was certainly lessened, but in nephritis with failing cardiac action and degenerated vessels very little change occurred. As a rule, the milk diet was well borne by the acute cases, and they certainly improved under its use. On the other hand, the chronic cases generally disliked milk from the first; they did not improve under it, and it certainly increased the uræmic symptoms. It had, however, considerable influence on reducing the tension of the pulse, which rose again on the resumption of a diet containing meat. This raising of the pulse-tension was an important objection to the use of a too stimulating diet in cases in which there was a strongly-acting vascular system, for fear of its inducing cerebral hæmorrhage, a risk as great, in Dr. Ralfe's opinion, as of inducing uræmia by too low a diet. The exclusive use of milk should be confined to acute cases

alone, and for a time perhaps to chronic cases, when it might be necessary to reduce the action of the vascular system. In cases with a failing heart and degenerated vessels a more stimulating diet was called for; its effect should, however, be carefully watched, and it should only be given in small quantities at a time.

Dr. Hale White referred to a series of observations made by him on the effects of milk diet in patients suffering from chronic nephritis. His conclusions, on the whole, agreed with those of Dr. Ralfe. The milk diet increased slightly the amount of urine excreted and lessened its specific gravity, but the amount of albumen increased. He insisted on the fact that the loss of albumen in chronic nephritis was trifling *per se*, and he added that too much importance was attributed to the amount of albumen present in the urine. He agreed that the milk diet tended to increase the risk of uræmia when this was threatening. No hard and fast rule could be laid down as to the milk diet in chronic cases of nephritis, and rather than give it in all cases he would prefer not to give it at all.

Dr. Solomon Smith suggested that the failure sometimes observed with milk might be due to its not being digested, which would make a milk diet a form of slow starvation.

Dr. Shuttleworth had observed that boiled milk was seldom tolerated for long, and he asked whether the effects of the milk of other animals was the same as that of cows' milk.

Dr. Kelson mentioned that the addition of eggs to the milk diet in one series had determined disastrous symptoms, and two of the patients had died, apparently in consequence of the change of diet.

Dr. Wethered pointed out that the effect of a milk diet must vary according to the previous habits of the patients, and he asked whether any difference in this respect had been noted between hospital and private patients.

Dr. Ralfe pointed out that what these patients required was a more solid but not a stimulating diet. He regretted that Dr. Hale White should have made use of the term "full diet," which was apt to mislead. The average quantity of milk was four pints daily, but more was given if asked for. It was taken plain or boiled or with effervescing water, as elected by the patient. He explained the mode in which his analyses were made, in order to avoid various sources of error and to insure an accurate estimate of the quantity of albumen.

Dr. Hale White asked permission to explain that by "full diet" he meant what was known as full diet in hospitals—a technical expression with a definite meaning—*British Medical Journal*, March 24, 1894.

NEW YORK ACADEMY OF MEDICINE.

BRONCHITIS.—Dr. A. Reich gave an interesting summary of the morbid anatomy and symptoms of bronchitis in children. Among the latter were mentioned dry, hot, pale skin; dilated nostrils; breathing of thoracic type; bulging of supra claviclar regions; rapid pulse and respiration; short inspiration, followed by a pause before commencement of expiration; expiration accompanied by a moan, caused by pleuritic pain; expectoration of whitish or yellowish muco-pus, usually swallowed, sometimes tinged with blood. There might be diarrhoea. As long as the inflammation was limited to the bronchial tubes the fremitus was normal, but if a large part of the lung were involved it increased, subcrepitant and crepitant râles changing location. The signs varied according to the extent of complicating broncho-pneumonia when this was present. In the same lobe, healthy, partially involved, and completely involved tissues, distinguished by their respective signs, were sometimes observed. The children might feel well the first part of the day, and gradually become distressed in the afternoon and night. The termination was usually by lysis. The child might grow weaker, the blood being less and less oxygenated, and convulsions and death follow; or it might gradually recover after several intervals of improvement, with involvement of fresh parts. For a long time after subsidence of the inflammation there was diminished respiratory murmur and a few subcrepitant râles.

Dr. Charles G. Kerley described a treatment based on an experience with several hundred cases seen at the clinic and hospital, where he had lived practically under the same roof with the patients, in many instances attending personally to the details. The room should be of a uniform temperature, from 70° to 72° F. (20° to 22.2° C.), the air completely changed in twelve or sixteen hours, while the patient occupies another room. Comfortable, loose clothing should be worn, and the belly-band be dispensed with, as it interferes with respiration. Clothing should never be damp. The infant should not be held on the lap, nor long on the back. Daily bathing or sponging with lukewarm salt water is beneficial, preferably in the evening. Dr. Kerley has not yet seen harm come from the bath. If there were many sonorous and sibilant râles, with difficult breathing, hot water would be beneficial, as a bath or pack, but it would be rarely advisable to apply it oftener than twice a day. Where there is a short, teasing cough, a spray of steam, simple or medicated, used fifteen minutes every hour or continuously for several hours, according to the case, will be found of value, if tolerated. In light forms of bronchitis em-

brocations of almost any form could be used, however mild, but in severer cases something more irritating is called for. Mustard might be left on one to three minutes; it will make the child cry quite vigorously, which in some cases is desirable. As a rule, it should not be employed more than twice a day.

Dr. Kerley regarded drug treatment as of least value. If he saw the case early he ordered castor-oil. Ipecac and tartar emetic might assist, the most convenient form being in tablet triturate. An emetic was seldom necessary. Carbonate of ammonia might be indicated. If there were a tendency for the disease to become chronic in delicate children, cod liver oil was indicated. A stimulant might be required, as whisky or strophanthus. The habit of giving cough-medicines was bad, as they nauseated the child and interfered with nutrition.

Dr. Henry Koplik stated that treatment should vary according to whether it were a simple acute bronchitis in a child previously healthy or in one in bad nutritive condition, as in rickets, or whether the disease was a complication of the exanthemata or heart disease, or a recurring bronchitis resembling asthma in the adult. In uncomplicated bronchitis a little camphorated tincture of opium (4 minims—0.26 gramme—every two or three hours for a child under 6 years) might be used to allay cough; if a malarial district, some quinine. He had not found the cold pack necessary, and had even interdicted the bath for a time, lest the child take cold. Nor was aconite indispensable to him, as it seemed to be to some other physicians. In many cases he had found the syrup of ipecac useful, combined with the opiate. In the subacute stage the opiate should be prohibited. Small doses of strychnia would then improve the appetite and aid the heart. Where relief had not been obtained by the means suggested, the speaker was inclined to resort to the balsams, such as terebene. Terebene should not be given in larger doses than ½ to 2 minims (0.03 to 0.13 gramme); if it were, it would disturb digestion.

In rachitic patients there was a tendency to relapse or a subacute condition, and treatment should be directed to the main condition. Cod liver oil, phosphorus, and tepid bran baths, followed by rubbing, were of benefit. If syphilis was suspected, iodide of potassium, either alone or with cod liver oil, or iodide of iron, should be given in the subacute stage. Iodide of potassium combined with digitalis or strophanthus was of most value in chronic bronchitis with emphysema.

Dr. W. H. Thomson believed nothing to be a better prophylactic against bronchitis, especially against repeated attacks, than a dry towel to protect the nape of the neck at night. If

children perspired much about the head and neck, salt-water sponging before bed-time was of service. When the cough was irritant and it was necessary to increase the secretion and allay the pain, Dr. Thomson's favorite prescription was an emulsion of linseed oil to excite the secretions and an anodyne of about a thirtieth of a grain (0.02 gramme) of morphine and three or four grains (0.2 or 0.26 gramme) of chloral. Where there was threatened muscular exhaustion from mucus collecting about the glottis an emetic was needed, as ipecac or, if necessary, sulphate of copper. The mucus should be removed with the finger after vomiting had ceased.

Dr. Baruch used tepid baths in children up to 5 years, beginning with 95° F. (35° C.) and reducing to 80° F. (26.8° C.). At the afternoon bath the mother should slap the body of the baby with the hand dipped in warm water, the temperature being reduced from day to day until 60° F. (15.6° C.) were reached. Water should then be dashed on with the hand, beginning with 80° F. (26.7° C.), and after some days gradually reducing to 60° F. (15.6° C.).

Dr. J. W. Brannan used mustard combined with flaxseed as a poultice for the chest. He also feared the exposure of baths. Half drop or drop doses of aconite were of value where there was fever.

Dr. J. Lewis Smith stated that no remedy was better than carbonate of ammonium to promote cough, small doses being used to avoid gastritis. The position of the child should be frequently changed to avoid pneumonia or atelectasis. Under the fourth month he used muriate of ammonium with syrup of Tolu. Half a grain (0.03 gramme) of phenacetin may be used to reduce temperature. Mustard should not be used under the tenth month. Instead of water he preferred a linseed and mustard poultice on the chest.—*Archives of Pediatrics*, April, 1894.

Progress of Science.

TREATMENT OF TABES DORSALIS.

MAX WEISS, of Vienna, describes a case of advanced tabes, in which the connection between that disease and syphilis was very clear, thus lending additional support to the Erb-Fournier theory. This case is especially noteworthy from the fact that a regular and steady specific treatment markedly and rapidly diminished pronounced objective and subjective tabetic symptoms, a few of these even disappearing entirely. The treatment consisted solely of rather large daily doses of iodide of sodium, increasing from 5 to 8 grammes (1¼ to

2 drachms) for several months. The patient was an engineer, 35 years old, who had never suffered from illness during childhood; in 1883 he acquired an indurated specific ulcer, with secondary symptoms. He was given twenty injections of corrosive sublimate and small doses of iodide of potassium; in July, 1884, a lingual ulcer developed, which underwent complete resolution after twenty-four injections of corrosive sublimate. Since that time there had been no specific eruption either on the body or the visible mucous membrane. In 1886 several attacks of nausea and vomiting occurred, each lasting about fourteen days, accompanied by severe pain in the back. In the autumn of 1887 renewed attacks of vomiting occurred early in the morning (gastric crises). From 1889 there were almost daily attacks of vomiting. Nutrition was much impaired and the body-weight decreased. He suffered from lancinating pains over the entire surface of the skin, more particularly on the arms and legs, most frequent after a change of weather. In 1890 co-ordinate disturbances of standing and walking were first noticed, with paræsthesia of the toes, soles of the feet, and the two small fingers of each hand, diminished tactile sensibility in the epigastric region, and fatigue after the least attempt at walking. Constipation, cramp-like pains in the abdomen (intestinal crises), some retention of urine, and severe boring pains in the urethral canal were added to the other symptoms. In the spring of 1893 the sight was poor at a distance of from twenty to thirty steps, but there was no trouble in reading and writing. In August, 1893, the patient was submitted to a systematic iodine treatment. For the first two weeks he took daily 5 grammes (1¼ drachms) of diluted iodide of sodium, no symptoms of iodism being observed. The daily dose was increased 2 grammes (31 grains), and for some time 3 grammes (46 grains). Within a month the daily gastric crises ceased suddenly, and have never since reappeared; in September, disturbances of co-ordination diminished perceptibly, and in October, when the patient was taking 8 grammes (2 drachm) of iodide of sodium daily, and had already consumed the enormous quantity of 500 grammes (1 pound) in all, without any untoward symptoms, no evidences of ataxia were present. The cloudiness of vision had also disappeared, the lancinating pains occurred but seldom, and were much less severe than formerly. The patient, even after walking several hours, did not feel any fatigue. His appetite has greatly increased, and his weight has increased 6 kilos (12 pounds). Treatment is still being continued in daily doses of from 6 to 8 grammes (1½ to 2 drachms), with short intermissions. The paræsthetic symptoms have almost entirely disappeared. The urethral crises and the weakness of the detrusors persisted longest, and systematic cross-galvanization of

the lumbar portion of the spinal cord, in the region of the perineum and of the bladder, were resorted to, with internal administration of ergot and strychnine, the result being that for three weeks before the time of report the patient no longer complained of urinary disturbance or of pain in the urethra. Dr. Weiss regards the great improvement as due entirely to the treatment. The absence of any symptoms of iodism is remarkable, and in his opinion may be due to the purity of the iodide of sodium employed. The absence of iodic acid from preparations of iodine causes them to be better supported, even in larger doses, and continued for months. Should it be impossible to administer the drug by the mouth, it may be given by the rectum.

Weiss refers to a case of genuine syphilitic tabes, treated by Werner Stark (*Duodecim*, v. viii, p. 280), in which a like rapid and marked improvement followed the administration of the iodide of potassium in large daily doses. The patient was a woman, aged 43, who had become infected by syphilis thirteen years previously, and recovered without relapse. Five years ago the first indications of tabes appeared, the symptoms increasing in intensity until the patient was unable to walk. No disturbances of the digestive or urinary organs occurred. When the patient was first seen by Stark, in 1890, she was pale and thin; there was complete ataxia of the legs, analgesia and partial anæsthesia of the skin, as well as weakness and atrophy of the muscles of the legs; the patellar reflex was absent. Psychic and ocular disturbances were not present. The patient had been discharged from hospital as incurable. Stark first gave 50 grammes (1½ ounces) in 400 grammes (13 ounces) of water, a tablespoonful being taken three times daily. After some time the pains became less severe. The dose was then increased to 60 to 400 grammes (1¾ to 13 ounces); after three months to 75 to 400 grammes (3¼ to 13 ounces); and again after three months to 100 to 400 grammes (3¼ to 13 ounces), 4 tablespoonfuls daily, this strong solution being taken for four months. After the first increase of the dose improvement soon occurred, so that the patient was able to do a little light work; after the second increase the pains disappeared and the ataxia and anæsthesia decreased. After the last increase, when the patient was taking 12 grammes (¾ drachms) of the iodide of potassium daily, there was perceptible improvement; the anæsthesia and ataxia disappeared and the muscular atrophy diminished; the patient could walk quite well with the aid of a cane or support. During the entire time she did not suffer from any disturbances of the digestive or other organs. Sometimes the treatment was continued steadily for weeks, and again it was interrupted at intervals; during

these, however, Stark observed that improvement was not progressive, and that there was occasionally a tendency to relapse. At the time of writing, the patient had, for a year only, occasionally been taking the iodide of potassium, feeling stronger after each treatment.—*Centralblatt für die gesammte Therapie*, February, 1894.

THE SEVERER FORMS OF SCARLET FEVER AND THEIR ANTIPYRETIC TREATMENT.

Between September, 1888, and July, 1890, DR. JOHN H. CARSLAW had under his care at the Belvidere Hospital, Glasgow, 630 cases of scarlatina. The majority of these were of the type "scarlatina simplex," the others varied greatly as to severity. There were 50 deaths: from renal complications, 17; pulmonary, complications, 5; laryngitis, 4; pyæmia, 2; cardiac disease with embolism, 1; rheumatism, chorea, etc., 1; tubercular meningitis, 1; purpura hæmorrhagica, 1; post-scarlatinal diphtheria, 1. In 17 cases, complications such as the above were absent, 11 of them being characterized by the severity of the attack upon the throat and neighboring parts, and 6 by the prominence of severe nervous phenomena. In the 11 cases of "scarlatina anginosa," with very bad throats, there was generally discharge from the nose; the neck was always swollen, in some instances distinctly "brawny"; the rash was sometimes delayed and "irregular," and the patients were usually restless, sometimes delirious; in 4 of the 11 cases convulsions occurred just before death, and in another there was inversion of the thumbs, this and Cheyne-Stokes breathing being noticed just at the close. The 6 cases with nervous phenomena were rather such as would be called "scarlatina maligna." The throats were not badly affected, but in all there was an unsatisfactory eruption, while the persistent vomiting and collapse described as of nervous origin were among the symptoms. The age of these latter patients was, as a rule, much higher than that of the patients suffering from severe throat symptoms, but in spite of this fact death occurred sooner. In both "scarlatina angina" and "scarlatina maligna" very high temperatures were met with, and in both some albuminuria, which was regarded as "febrile." In some of them there was *diarrhœa*, an important symptom as regards the prognosis. In many of the fatal cases the motions were particularly observed, and are noted as *loose, green* and *offensive*, with an appearance suggestive of cabbage and spinach chopped up and mixed with water; sometimes, of course, particles of undigested milk were distinguishable. As regards the condition of the intestine, it seems to be determined that in severe cases of scarlet fever, especially such as come early to post-

mortem, the bowel is in an easily-irritated condition, and, whether for that reason or not, severe cases are liable, during the febrile attack, to the diarrhoea described. The inference as regards treatment is obvious; purgatives should be avoided and an enema used, if required, in any case whose severity suggests that such a diarrhoea may supervene.

The "expectant" plan was followed in the great majority of the cases of scarlatina simplex; the only active interference was by some application to the throat when it was at all sore or even slightly ulcerated. In these simple cases antipyretics were not employed; when restlessness was troublesome, sponging with tepid water was used. Mustard spongings are particularly useful in the earlier stages of an attack with nervous phenomena.

In the cases in which the laryngeal and nervous symptoms predominate, special attention should be directed to the conditions in and around the throat, and antiseptics used locally. Bits of the ordinary urethral bougies of eucalyptus and iodoform were found very useful by the author for introduction into the anterior nares. Quinine may be given internally, but not in heroic doses, and tepid sponging will allay restlessness to some extent.

In considering the applicability of antipyretics in scarlet fever, certain features of the disease must be borne in mind, the most important being the tendency to collapse, the rash, and the renal condition. These being kept in view, the means at command for the reduction of temperature are diaphoretics, antipyretic drugs, and cold and tepid water. Diaphoretics may be useful in moderately severe cases, but when nervous complications are present may increase the tendency to collapse. Pilocarpine should be used only in very small doses. All antipyretic drugs are open to the objection that they tend to depress, and must be used with caution. The external use of cold should either be postponed altogether till the rash is mature, or must be used in such a modified form as to minimize the danger of superficial anæmia; even supposing the rash to be developed, the application of cold must neither be so prolonged nor so intense as to lead to the premature disappearance of the rash, to the danger of collapse, or to serious internal congestion. The author approves of the cold wet-pack, at from 50° to 60° F. (10° to 15.6° C.), in the hyperpyrexia of nervous attacks. In his cases the rectal temperature and pulse were lowered, and there was a marked improvement in condition of the nervous system, the most restless patients going to sleep in the pack. Even though the temperature rises soon again and the symptoms return in all their violence, a repetition of the pack is again followed by favorable results, the tendency to hyperpyrexia is overcome, and the patient makes a good

recovery. The possibility of collapse must never be overlooked, especially in "malignant" cases; and the nurse should always be instructed that if the patient become livid, sick, shivery, or faint, he must be at once removed from the pack, and warmth and stimulants employed. Great care must be taken to prevent chills.—*Glasgow Medical Journal*, January and February, 1894.

RECENT SUGGESTIONS IN THERAPEUTICS.

INSOMNIA.—In a case of delirium tremens, *bromide of potassium* and *chloral sulphonal* and *morphia* failed to produce sleep. *Chlorobrom* was tried, in dose of 1½ ounces (45 grammes). The patient fell asleep in half an hour and slept two hours, when 1 tablespoonful more was given, causing a sleep of five hours. (R. B. LOTHIAN, *Lancet*, December 9, 1893.)

Try nature's plan, instead of drugs: *lower the supply of oxygen to the blood*; produce a little asphyxia; limit the quantity of air to the lungs. The heart and circulation becoming quicker, the brain will lose its stimulant, and sleep will follow. Cover your head with the bedclothes, and breathe and rebreathe only the respired air. When drowsiness is produced, it is easy to go on sleeping, though you push aside the coverings and get as much fresh air as needed. The cat and dog bury their noses in some soft hollow in their hair or fur, and soon drop asleep. (J. E. HUXLEY, *Medical Press and Circular*, December 13, 1893.)

MALIGNANT PUSTULE.—Excision of entire pustule, with marginal tissues. Wound dressed with paste made of *ipecacuanha* and water and double cyanide gauze. Internally, 5 grains (0.32 gramme) of *ipecacuanha* with 1-6 grain (0.01 gramme) *morphia* every four hours for five days, and every six hours on sixth day. Discontinued internally and externally on seventh day. Patient dismissed cured on twenty-ninth day. (W. H. MOORE, *Lancet*, November 25, 1893.)

PERITONITIS.—Instead of opening the abdomen in tubercular peritonitis and exposing the peritoneum to the atmosphere, *air is introduced* into the cavity by means of an insufflating apparatus, which first sterilizes the air. In three cases the desired result of preventing recurrence of ascites was obtained. The method is regarded as safe and the results favorable. (NOLEN, *Berliner klinische Wochenschrift*, No. 34, 1893.)

PERTUSSIS.—*Bromoform*, 1 drop for each year of age of patient, four times daily, for first three days, increasing dose progressively if attacks do not diminish. Vomiting ceases, appetite returns, and disease lasts but three weeks, sometimes much less. (PELLICER, *Revista barlear de ciencias medicas*, p. 590, 1893.)

PHULLUAH.—An oleaginous substance obtained from a wild East Indian plant. About the size of an areca-nut. Melts on exposure to heat; and if kept for some time in liquid form becomes dirty-brown in color. Largely used by the hill-tribes for the cure of frost-bite and chilblains. Topical use very beneficial in rheumatism, sprains, sciatica, producing an effect when other remedies were useless. (E. C. BEDDELL, *Indian Medical Record*, November 16, 1893.)

POST-PARTUM HÆMORRHAGE.—To arrest hæmorrhage, pass right hand boldly up to placental site, readily discovered by sense of feeling; make a few sweeps with back of hand over bleeding sinuses, at the same time inducing counter-pressure with left hand. Hold parts with double grasp until right hand is expelled by powerful uterine contraction. (T. SHAW, *Medical Age*, December 11, 1893.)

RECTAL CANCER.—Case in which, two inches above anal aperture, upon anterior wall of rectum, there was irregular oval mass of infiltrated tissue, one inch or more in diameter when first seen, but invading entire circumference of rectum within a few months. Incision made posteriorly, one inch from anal outlet, carried up on median line above sacrum. *Coccyx and two-fifths of sacrum removed*, allowing room to dissect rectum from its attachment, dividing posteriorly the meso-rectum and entering at once into peritoneal cavity. Sufficient length of bowel was thus brought down for easy manipulation. Rectum divided two inches above anus, constricting diseased portion split open upon posterior borders, and rectum divided above growth, *four inches being removed*. *Murphy's anastomosis button*, larger size, adjusted in divided extremities of bowel, and compressed muscular coat being hypertrophied in upper portion, parts re-inforced with continuous suture. Opening into peritoneum of pelvic floor closed with same, to prevent prolapse of small intestine, and possible subsequent infection of peritoneal cavity. Posterior wall of bowel re-attached to divided tissues, and large portion of wound closed by several lines of buried sutures, *Iodoform-gauze drain*. Patient discharged from hospital on twentieth day after operation, button having been removed on twelfth day. (H. O. MARCY, *Boston Medical and Surgical Journal*, December 7, 1893.)

THERAPEUTIC BRIEFS.*

—In the *Berliner klinische Wochenschrift* (cited in the *Centralblatt für Klinische Medizin*) Dr. P. Furbinger treats of the peanut as an article of food rich in albumin, of which it contains forty-seven per cent., together with nineteen per cent. of fat and non-nitrogenous extractive matters. He recommends the use

of roasted peanuts in the form of soup or mush. On account of their cheapness, peanuts are recommended as a popular article of food, especially in poorhouses and the like; moreover, they are recommended as an article of food for the corpulent, for diabetes, and for the subjects of kidney disease, in the last mentioned of whom foods rich in animal albumin are to be avoided.

—**HÆMORRHAGE** is a very common accompaniment of malignant disease of the tonsils. A solution of antipyrine, 1 part to 50, may be used as a hæmostatic. Should such treatment not succeed, then ligation of the base of the tumor, either by one ligature or by several, may be resorted to, or cauterization by the thermo or galvano-cautery. In the event of none of these means succeeding, ligation of the lingual and facial arteries may be required, or as a *dernier ressort*, the carotid may be tied. — (NEWMAN in *New York Medical Record*.)

—Casselberry, *N. Y. Med. Journal*, recommends the following combination as a soothing spray in ACUTE INFLAMMATION OF THE LARYNX AND TRACHEA:

R. Ol. pini canadensis,	℥ v
Ol. gaultheriæ,	℥ ij
Ol. eucalypti,	℥ ij
Menthol,	gr. j
Benzoinol,	5 ij
Vaseline oil q. s. ad	5 j. M.

SIG.—To be used with a double bulb atomizer.

—Professor Germain Sée recommends the following simple but satisfactory PURGATIVE POWDER:—

R. Sulphur. sublimat.,	
Potassii bitart.,	
Magnesiæ calcinat.,	āā grammes xxx
Essent. anisi,	gramme 1. M.

SIG.—A teaspoonful in a little water before dinner and supper.

—The following treatment is recommended in the *Revista de Ciencias Medicas de Barcelona* (*Cinn. Lancet-Clinic*) for ALOPECIA AREATA of parasitic origin:—Wash the head with a solution of creolin (3: 1000), and apply to the affected spots once or twice a day for five minutes, green soap and then a salve of lanolin and sublimate, 15: 100. When it is of neurotic origin he employs pure carbolic acid, which, after the consequent inflammation has passed away, may be repeated. The effect is certain, though painful.

—In the *Med. Neuigkeiten* (*Cinn. Lancet-Clinic*) the following treatment of GONORRHEAL VULVO-VAGINITIS is praised. In the acute stage a bath is taken daily, every four hours the vulva is washed with a solution of sublimate (5: 1000), and all irritant foods and beverages are to be avoided. In the subacute and chronic stages two injections daily of a solution of sublimate, four grains, and one gramme (15 grs.) of tartaric acid per thousand, using two quarts of this

* From *College and Clinical Record*.

solution at each injection. At the same time, two or three times a week, a tampon impregnated with equal parts of alum, tannin and salol should be introduced, and every evening a vaginal suppository containing four grammes (5j) of tannin or iodoform, one-half gramme (7½ grs.) of glycerine and cacao butter.

—The writer concludes, after two operations of SYMPHYSEOTOMY and some investigations on the cadaver, that not more than two centimetres separation of the pubic joint follows simple division of the articulation, while by section of the ligamentum arcuatum inferius the joint will separate to the extent of 5 to 6 ctm.—(DODERLEIN, in *Med. Record*.)

—A mixture of chloroform (ten parts), ether (fifteen parts) and menthol (one part), used as a spray, is recommended as an excellent and prompt means for obtaining LOCAL ANÆSTHESIA lasting about five minutes.—(*Boston Med. and Surg. Journal*.)

—Hayem* gives the following prescription for the relief of ACUTE CORYZA:

R. Acid. carbolic.,
Aque ammoniæ, āā 5 ijss
Alcohol, 5 v
Aque destil., 5 j. M.

**Rev. de Laryngol., d'Otol. et de Rhinol.*, in *Boston Med. and Surg. Journal*.

SIG.—Inhale from several drops upon a piece of bibulous paper.

—Lotion for PRURITUS VULVÆ (*Practitioner*):

R. Hydrargyri perchlorid., gr. j.
Aluminis, gr. xx
Pulv. amyli, 5 jss
Aque menthæ pip. q. s. ad 3 vj.

M. et fiat lotio.

SIG.—Apply externally to the affected parts.

—Dr. Carasso Michele, Director of the Military Hospital at Genoa, has used since 1888, in the treatment of pulmonary tuberculosis, constant INHALATIONS OF OIL OF PEPPERMINT (*Boston Med. and Surg. Journal*, Jan. 11th, 1894). He combines the inhalation with the internal administration of an alcoholic solution of creosote, glycerine and chloroform, to which is added oleum menthæ piperitæ, 1:100. His results are reported as remarkable. Not only were incipient cases cured, but advanced cases also, some thirty-nine in all, with cavity-formation and abundant bacilli in the sputum. All the cases treated were of pulmonary diseases only, without tubercular affection elsewhere.

EPITHELIOMA of superficial variety may be treated with alternate applications of ten per cent. methyl-blue and twenty per cent. chromic acid.—(DARIER, in *Med. Record*.)

—The heart cannot be weakened under CHLOROFORM except by interference with the breathing. It is useless and dangerous to take the pulse as a guide. Watch the respiration.

Safety is insured only by regular natural breathing.—(LAWRIE, in *Med. Record*.)

—INDICATIONS FOR CHOLECYSTOTOMY are frequently recurring biliary colic without jaundice, where medical treatment has failed. Persistent jaundice where the onset is ushered in with pain, and where recurring pains, with or without ague-like attacks, render it probable that the cause is gall stones in the common duct. Distended gall-bladder from impaction of calculi in the ducts. Empyema of the gall-bladder. Persistent jaundice with enlargement of the gall-bladder dependent on some obstruction in the common duct, even where the cause cannot be clearly made out.—(ROBSON, in *Med. Record*.)

—SUPRA-SPHINCTERIC ULCERS OF THE RECTUM require the galvano-cautery under anæsthesia and with the aid of speculum. Boric acid lotions and iodoform tampons may be used in the after-treatment, and antiseptics, such as naphthol, administered internally.—(QUÉNN in *Med. Record*.)

—FOR ROSACEA, Petrinio in *Medical Record*:

R. Ichthyol, 2 parts
Resorcin, 1 part
Collodii. flexil, 30 parts.

—Dr. Liveing (*Münchener Med. Wochenschrift*, in *Cinn. Lancet-Clinic*, Jan. 13, 1894) recommends in ITCHING OF THE ANUS FROM PIN WORMS the following salve, to be rubbed in every evening:

R. Mercurial oint., equal parts.
Vaseline,

For the same affection the following formula is also of service:

Calomel, gms. 3
(grs. xlv).
Vaseline, gms. 30
(grs. 5 j).

Cocaine, 1 part
Bismuth subnitrate, 2 parts
Lanoline, 20 parts

—IN CANCER OF THE UTERUS total extirpation is destined to be the operation whether the disease is cervical or corporeal, and if done in time will permanently cure a certain portion of cases. If any tissues adjacent to the uterus are already involved, it should not be attempted.—(LEWIS in *Med. Record*.)

—Dr. Fitch (*Charlotte Medical Journal*) recommends the following in SUMMER COMPLAINT:

R. Acid. hydrochloric. dilut., ℥xvj
Pepsin. pur., 5s
Bismuth. subnitrat., 5 ij
Syrup., f 5 ij
Aque destillat., f 5 ij. M.

SIG.—Shake the bottle, and give a teaspoonful before each feeding or nursing to an infant one year old, half the dose to an infant six months.

This mixture must be made fresh every

second day and kept in a cool place, as it is prone to fermentation and would therefore be unfit to use.

—TO ALLAY ITCHING IN SKIN DISEASES (Dr. A. T. Thompson, *Medical and Surgical Reporter*):

R. Plumbi acetatis, gr. xvj
Acid. hydrocyanic. dilut., f 5jss
Spirit. rectificat., f 5iv
Aquæ destillat., f 3 vijss M.

SIG.—Use as a wash.

—IN TUBERCULAR OSTITIS OF THE KNEE IN CHILDREN (White Swelling), it has long since been established that the growth of bone is seriously interfered with by excision, and surgeons, as a rule, avoid operating on the knee-joint. The cases that I have presented lend additional weight to the argument against the operation. The appearance of sinuses, the infiltration and distortion of the limb, seem to demoralize the surgeon at times, and he feels that only an incision will save life.—(GIBNEY in *Med. Record*.)

—We quote the following items from the *Medical Record* January 13, 1894:

Dr. Bernheim (*Deutsch Med. Wochenschrift*) recommends in the DYSPNEA OF ACUTE PHTHISIS the following formula:

R. Caffein. citrat., 2 gms. (grs. xxx.)
Æther. sulphuric., 20 gms. (3 v.)

Inject two grains (30 gtt.) morning and evening.

In SCIATICA AND OTHER NEURALGIAS:

R. Tinct. aconiti,
Tinct. colch. seminis,
Tinct. belladonnæ,
Tinct. actææ racemosæ, aa partes æquales

SIG.—Six drops every six hours.—(METCALF.)

THEOBROMIN (gr. 45 to 75 daily for three days) gave good results in grave cases of CARDIAC DROPSY.—(GERMAIN SÉE.)

STROPHANTHUS is much more rapid in its action than digitalis, but is not suitable for prolonged use. In one case, in which during three or four days its good effect was conspicuous, the heart, under its prolonged use, became extremely frequent and the sense of cardiac distress extreme; and yet, when its employment was entirely given up for a week, it proved as rapidly and as distinctly useful as before.—(LITTLE.)

In TOOTHACHE (*Journal de Pharmacie*):

R. Dry alcoholic extract opium,
Camphor, aa 0.50
Balsam Peru,
Mastic, aa 1.0
Chloroform, 10.0

Introduced into the cavity, it calms the pain at once.

ACETATE OF ALUMINIUM is, next to carbolic and salicylic acid, the disinfectant which prevents, for the longest time, the development of micrococci and produces no irritation.—(FRAIPONT.)

CAFFEIN, I think, deserves to rank next as a cardiac tonic. I have, in a few cases, got undoubted help from it. They were all old cases in which digitalis and strophanthus had ceased to benefit; they were all aged persons; they were all short of breath and dropsical, and presented the signs of dilatation with degeneration of the ventricular walls.—(LITTLE.)

Locally for JOINT RHEUMATISM:

R. Acid. salicylic, 3jss
Alcohol. absolut., f 5j
Olei ricini, f 3 ij.

Apply by compress covered with impermeable tissue.—(RUEL.)

Camphor solution for HYPODERMIC INJECTION:

R. Camphor, 2.0
Liquid paraffine, 8.0

A one-gramme syringe will contain twenty centigrammes of camphor.—(BOSNER.)

CHLORIDE OF GOLD AND SODIUM in pills or granules, given in doses from two milligrammes to three centigrammes, improved the general condition of paralytics in the first and second periods.—(BOUBILA.)

The majority of so-called recoveries from APPENDICITIS treated medically are not recoveries in the full sense of the word, but simply a respite which enables one to settle worldly affairs and take out a life-insurance policy in anticipation of a fatal termination.—(SANBORN.)

PIPERAZINE is perfectly harmless. In birds, deposits of urates can almost with certainty be produced by neutral chromate of potash. In the majority of cases piperazine prevents the deposition of urates produced by the chromate, while lithium carbonate, borax, and sodium phosphate are powerless to prevent it. These experiments confirm the results of treatment of the uric-acid diathesis by piperazine.—(BIRSENTHAL.)

EPILATORY LIQUID:—

R. Pure iodine, gr. xij
Essence of turpentine, ʒ xx
Castor oil, f 3 ss
Alcohol, f 3 ijss
Collodion, f 3 j. M.

SIG.—Apply once daily for three or four days; when the collodion comes away, a clean surface will be left.

In ASTHMA a capsule containing two grains of phenacetine, one of quinine, three of muriate of ammonia, one-eighth of capsicum, and one twenty fourth of strychnine, given four times daily, will often relieve an attack of this distressing malady.—(MAYS.)

For EMPHYSEMA:—

R. Essence of turpentine, 4.5 gms.
Peppermint water, 120 gms.
Sugar,
Pulv. gum acacia, aa 4 gms. M.

SIG.—Dessertspoonful every two or three hours.—*College and Clinical Record*.

THE CANADA MEDICAL RECORD

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MONTREAL, SEPTEMBER, 1894.**THE CANADA MEDICAL ASSOCIATION.**

We have much pleasure in calling our readers' attention to the very full report of the meeting just held at St. John, New Brunswick, which will be found in another part of this issue. The meeting was admitted by all who were present to have been the most successful in the history of the Association. On one occasion only was the attendance larger, but at that meeting there was not the enthusiasm and sustained interest which was noticeable at St. John.

The sessions began promptly on time, the business was quickly disposed of, and one paper after the other was rapidly called for, read and discussed. The hospitality of the profession of St. John was unbounded; besides numerous private entertainments, there was a large public ball given, instead of a banquet, which gave an opportunity to the younger members of the Association to demonstrate their efficiency in the terpsichorean art.

Many of the older members were the guests of different medical men in the city, while the hotels took good care of the others, although the city at the time was unusually full of tourists. The sessions were especially

well attended, the hall in which they were held being nearly all the time crowded with listeners. It was not until nearly eleven p.m. of the second day that the last paper was read and discussed. A great deal of the success of the meeting was due to the untiring efforts of the Secretary, Dr. Starr of Toronto, who not only secured a good programme of papers and addresses, but also a good attendance of listeners. The President, Dr. Harrison of Selkirk, communicated with the Medical Associations of New Brunswick, Nova Scotia and Prince Edward Island, as well as with the Maritime Province Medical Association, and readily obtained their consent to amalgamate with the Canada Medical for this year, thus ensuring a large attendance of the local members.

The Railway Companies gave reduced fares, for which they received a vote of thanks; but the reduction to the Medical delegates was nothing like so great as that open to anyone or every one a few weeks earlier and a few weeks later, when, instead of fifteen dollars, they issued excursion tickets for just half that amount. There were many who thought that they might have extended their popular excursion rate to the Medical delegates. The election of Dr. William Bayard of St. John to the presidency gave general satisfaction; although over eighty-one years of age, he is hale and hearty and attends a large practice—often at night—with an alacrity which would put many a younger man to shame. Dr. Bayard has been the leader of the profession of New Brunswick for the last forty years, and it will be no small honor for the Canadian Medical Association to point to its octogenarian president next year, at Kingston, as an example of what the air and food and habits of New Brunswick will do in prolonging life. We trust that every member of the profession will put it down as an engagement to attend the next meeting of this our national Association.

THE UNIVERSITY OF CANADA.

During the recent meeting of the Canada Medical Association at St. John, the topic which excited the most interesting discussion was that of reciprocity in medical practice. Not that the subject is by any means a new one—on the contrary, it has been discussed at every meeting for several years past, but always with the same result; a committee has been appointed, which has practically done nothing. As the matter stands at present, the province of Ontario has a Medical examining board, before which every one must pass in order to obtain a licence to practise; no matter whether he be the gold medallist from the best University or the last man in the pass-list of the weakest medical school, he must pass an examination before examiners who are not professors of that subject in the province. This is a single portal for all who wish to enter. This system has its hardships, but, on the whole, it is the best possible one under the circumstances. It does not, however, please either the Medical Schools of that province nor of the other provinces, who would prefer to see no barrier thrown in the way of the great army of young men which they annually turn out. The Medical Council of each province represents the general profession and not the Medical Schools, the interests of each not exactly coinciding, for the ranks of the profession are comfortably full, having already reached the one to a thousand of population limit, and any great increase in the numbers of practitioners over and above those necessary to fill vacancies caused by death or to attend the increased population would lead to an unnecessarily hard struggle for existence. The province of Ontario is the richest province of the Dominion, and it is to it that the graduates of the schools of the other provinces naturally direct their footsteps; and were it not for the very high standards, both preliminary and professional, which it has set up against them, it would soon be over-run.

It is therefore useless for the Canada Medical Association or any other body to attempt to arrange reciprocity, the condition of which would be the lowering of Ontario's high standard, while without this condition reciprocity practically exists. Even the little province of British Columbia away out on the Pacific Coast

declines to be flooded with the overflow from the East, and it too has a Medical Council to protect its physicians in the peaceful practice of their profession. Then again there is the question of reciprocity with Great Britain which is constantly looming up. At present the graduates of Canadian Medical Schools cannot obtain a licence to practise in the Mother Country which replies to their demand for reciprocity by saying: We cannot recognize your diplomas when you do not recognize them among yourselves.

We have always opposed reciprocity either between the provinces or between this country, and Great Britain, for the reason that it is not for the best interests of the profession of Canada that it should be exposed to the danger of overcrowding, which would almost surely follow the throwing down of the barriers which at present exist. For it must be evident to anyone that if fifty doctors in British Columbia for instance are at present barely making a comfortable living by hard work, those same fifty would have their earnings reduced by half if another fifty doctors were admitted without a corresponding increase in population. In our opinion, it is more just and reasonable that each country and each province should decide for itself how good or how bad a doctor it will receive, or, in other words, how many physicians the population can support. If any Canadian desires to practise in England or France, let him do as many others have done, pass the examinations imposed by the authorities of that country for its own citizens.

As all are not of our way of thinking, but on the contrary maintain that one who is fit to practise in one part of Canada should be entitled to practise in any part of Canada, and that those who are fit to practise in one part of the British Empire should be entitled to practise in any part of it, we beg to offer a suggestion for the only practical solution of the difficulty.

This solution is nothing more nor less than a University of Canada, not a teaching body, but an examining body only, founded by Royal Charter on exactly the same lines as the University of London. Its examiners could be chosen by the Universities and other scientific bodies, so as to remove them from the blighting influence of politics, and they could meet at Ottawa

once a year. One of the examiners might be a delegate from the University of London, and the examination papers might be duplicates of those used at that institution. In this way, the University of Canada being affiliated with the University of London, those who had the M.D. Canada would enjoy all the privilege of the M.D. London. The expense of the degree would be two hundred and fifty dollars, which is the same as the M.D. Durham and the M.D. Brussels. This fee would probably be ample to pay the expenses of the examiners. It has been raised as an objection to this scheme that the British North America Act delegated all matters concerning education to the various provincial legislatures, and that therefore a University of Canada could not be established without an amendment to the above Act being passed by the British Parliament. In reply to this objection we maintain that Great Britain would gladly grant any legislation which might be desired unanimously by the people of Canada. If those who have been working so hard for so many years, in order to bring about reciprocity, but in vain, would bring their energy to bear in this direction, we have no doubt that they would not only obtain their wish but also help thereby to raise the Dominion of Canada to the level of a great nation.

AMENDE HONORABLE.

Owing to an omission of the printer, the excellent extracts from our contemporary the *College and Clinical Record* were not duly credited to that journal in two of our issues.

BOOK NOTICES.

SAUNDERS' QUESTION-COMPENDS, No. 14. PART I. ESSENTIALS OF REFRACTION AND THE DISEASES OF THE EYE. By Edward Jackson, A.M., M.D., Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine; PART II. ESSENTIALS OF DISEASES OF THE NOSE AND THROAT. By E. B. Gleason, S.B., M.D., Surgeon in charge of the Nose, Throat and Ear Department of the Northern Dispensary of Philadelphia; Second edition, revised; 124 illustrations. Philadelphia: W. B. Saunders, 925 Walnut Street, 1894. Price \$1.00.

This work has already been noticed in these columns. We are pleased to see that a second edition has been called for so soon.

A TEXT-BOOK OF THE DISEASES OF WOMEN. By Henry J. Garrigues, A.M., M.D., Professor of Obstetrics in the New York Post-Graduate Medical School and Hospital; Gynecologist to St. Mark's Hospital in New York City; Gynecologist to the

German Dispensary in the City of New York; Consulting Obstetric Surgeon to the New York Maternity Hospital; Consulting Obstetrician to the New York Infant Asylum (resigned); Ex-President of the German Medical Society of the City of New York; Fellow of the American Gynecological Society; Fellow of the New York Academy of Medicine, etc. Containing three hundred and ten engravings and colored plates. Philadelphia: W. B. Saunders, 925 Walnut Street, 1894. Price: cloth \$4.00 net; sheep \$5.00 net.

The author in his opening pages gives such a true idea of the scope of his work that we cannot review it better than to give his own words: "In writing this book I have first had in view the large class of physicians who have not had the advantage of hospital training, and *who go to a post-graduate school* in order to learn gynecology. They can only stay a short time, and they want a full but concise exposition, up to date, of the nature and treatment of the diseases peculiar to women.

"Secondly, I have tried to satisfy the requirements of that much larger class who would like to go to such an establishment, but *who find it impossible to leave their practice*. They are busy men, who have to keep abreast of recent progress as best they can in all branches of a general practitioner's work. They want information about the present state of Gynecology, but cannot find time to study large works.

"If in large cities, it is better for the general practitioner, as well as for his patient, to leave the treatment of most gynecological cases to those who have special experience and skill in this line; the same does not always hold good in country practice. The long distances in this immense country make it very difficult, and often impossible, to send patients to places where they can be treated by specialists. American physicians are enterprising, and some men practising in a village have achieved world-wide renown, and become the leaders of their city confrères.

"Finally, I think the book will be found useful by *undergraduates* studying in medical colleges. They will probably at that stage of their development skip many details about operations which they will be glad to take up later, when the responsibility of a medical practitioner lies heavy on their shoulders. The division into a general and special part will presumably be useful for the beginner, and he will hardly care to pay much attention to what has been placed in notes under the text.

"This being a book for General Practitioners and Students, I have omitted all reference to the historical development by which gynecology has attained its present stage, as well as all reports of special cases.

"The limits and nature of the work have not

allowed me to speak of all methods of treating every disease, but I have striven to give a clear and succinct description of the best modes of treatment; and the reader will in this book find many details which he would look for in vain in larger works.

"My aim has been to write a practical work. The reader's time is not taken up by theoretical discussions, and the pathology has been treated very briefly. On the other hand, I have tried to help the reader to make a diagnosis, and to teach him how to treat the different diseases. In this respect I have gone into minute details affording manifold information about points which practitioners who live in large cities learn from one another, or by visits to the shops of the instrument-makers.

"I have treated so discursively of the anatomy of the female genitals because this subject, to a great extent, has been worked up by the gynecologists themselves, and is not as yet described satisfactorily in the text-books of anatomy, but only in large works of an encyclopedic character or in articles in journals to which many have not access.

I expect to be criticized for having devoted special chapters to Hemorrhage and Leucorrhœa. I know well that they are not diseases; but they are symptoms that play so great a part in the diseases of women, and so often require symptomatic treatment, that I take it to be in the interest of the general practitioner to treat them separately; and, besides, by so doing infinite repetitions are avoided.

"This being a text-book for beginners and a manual for general practitioners, names of authors have been omitted as much as possible from the text, except when it was necessary in order to designate different methods of operations. In making use of the work of American authors, I have, however, given them credit for it in foot-notes, and I trust that it will be found that a large amount of information of this kind has been embodied in the text.

"In indicating the treatment of the various affections, I mention always the simpler and innocuous means before the more complicated and dangerous, medical and electrical treatment being accorded precedence over surgical.

"Throughout the work a chief object has been to give modes of treatment as they are practised in America, by which I hope that it will be found more useful for American students and practitioners than the works written by or translated from foreign authors.

"The illustrations form a *complete atlas of the embryology and anatomy of the female genitalia*, and represent numerous operations and pathological conditions. Many come from my own operations, dissections and microscopical examinations."

A careful perusal of the work warrants us in

saying that he has faithfully accomplished all that he has undertaken. One cannot read it without coming to the decided conclusion that the author is thoroughly conversant with every detail of the subject, in which he has had a large and ripe experience.

PAMPHLETS.

REPORT OF THE RUSH HOSPITAL FOR CONSUMPTION AND ALLIED DISEASES, from February 1, 1892, to February 1, 1894, with the second report of the Women's Board of the Rush Hospital. Twenty-Second and Pine Streets, Philadelphia.

CONSERVATIVE TREATMENT OF PYOSALPINX. By Cornelius Kollock, A.M., M.D., Cherau, S.C., Fellow of American Gynecological Society. Read before the Southern Surgical and Gynecological Association, 1893.

HYSTERECTOMY INDICATIONS AND TECHNIQUE. By J. M. Baldy, M.D., Professor of Gynecology in the Philadelphia Polyclinic. Reprinted from the American Journal of Obstetrics, Vol. xxviii, No. 5, 1893. New York: William Wood & Company, publishers, 1893.

BLOODLESS AMPUTATION AT THE HIP JOINT BY A NEW METHOD. By Nicholas Senn, M.D., Ph.D., Professor of Practice of Surgery and Clinical Surgery, Rush Medical College. Read before the Surgical Section of the Suffolk District Medical Society, Boston, February 1st, 1893. Reprinted from the Chicago Clinical Review, February, 1893, Chicago.

A NEW PATHOLOGY AND TREATMENT OF NERVOUS CATARRH. Read in the Section on Laryngology and Otology, at the Forty-fourth Annual Meeting of the American Medical Association. By Seth Scott Bishop, M.D., Chicago. Reprinted from the Journal of the American Medical Association, November 25, 1893. Chicago, published at the office of the Association, 1893.

REPORT OF TWO YEARS' WORK IN ABDOMINAL SURGERY at the Kensington Hospital for Women, Philadelphia. By Charles P. Noble, M.D., Surgeon-in-Chief. Reprinted from the International Medical Magazine for December, 1893.

SURGICAL SHOCK. By Charles P. Noble, M.D., Philadelphia, Surgeon-in-Chief of the Kensington Hospital for Women.

A BRIEF SYNOPSIS OF THE THERAPEUTICS OF STATIC ELECTRICITY. By S. H. Monell, M.D. Reprinted from The New York Medical Journal for January 20, 1894.

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